

Record

No.  
1945 —

Collection number book  
of T. R. Fosberg

No. 24725 — 24941

Descriptive pages  
typed for files 1939  
B. Drinker

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- Tefan Island, between Mt. Chukuseon and Mt. Chakuchap, Mesa village..	24503-24522	76-81
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## Collection and Field Note Book

No. 14

Nov. 25, 1945 - June 9, 1946

(Nos. 24225 - 24941)

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## ILLINOIS

Bond Co., Mulberry Grove	24250-24260	8-11
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1 *Bergisismor**Fimbristylis*2 *Ujos**Eragrostis am.*3 *Kaleklik**Kaleklik asperula*4 *Bell**belo* *Sponges*5 *Wet**new* *Mounds*6 *Kono**new* *Massachusetts*7 *Kiron**new* *Cordis*8 *Ujos atok**ujos atok* *left*9 11 *Marrow**ujos new* *Pyrenia**Lobularia*



Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. John A. Stevenson

DATE: July 14, 1948

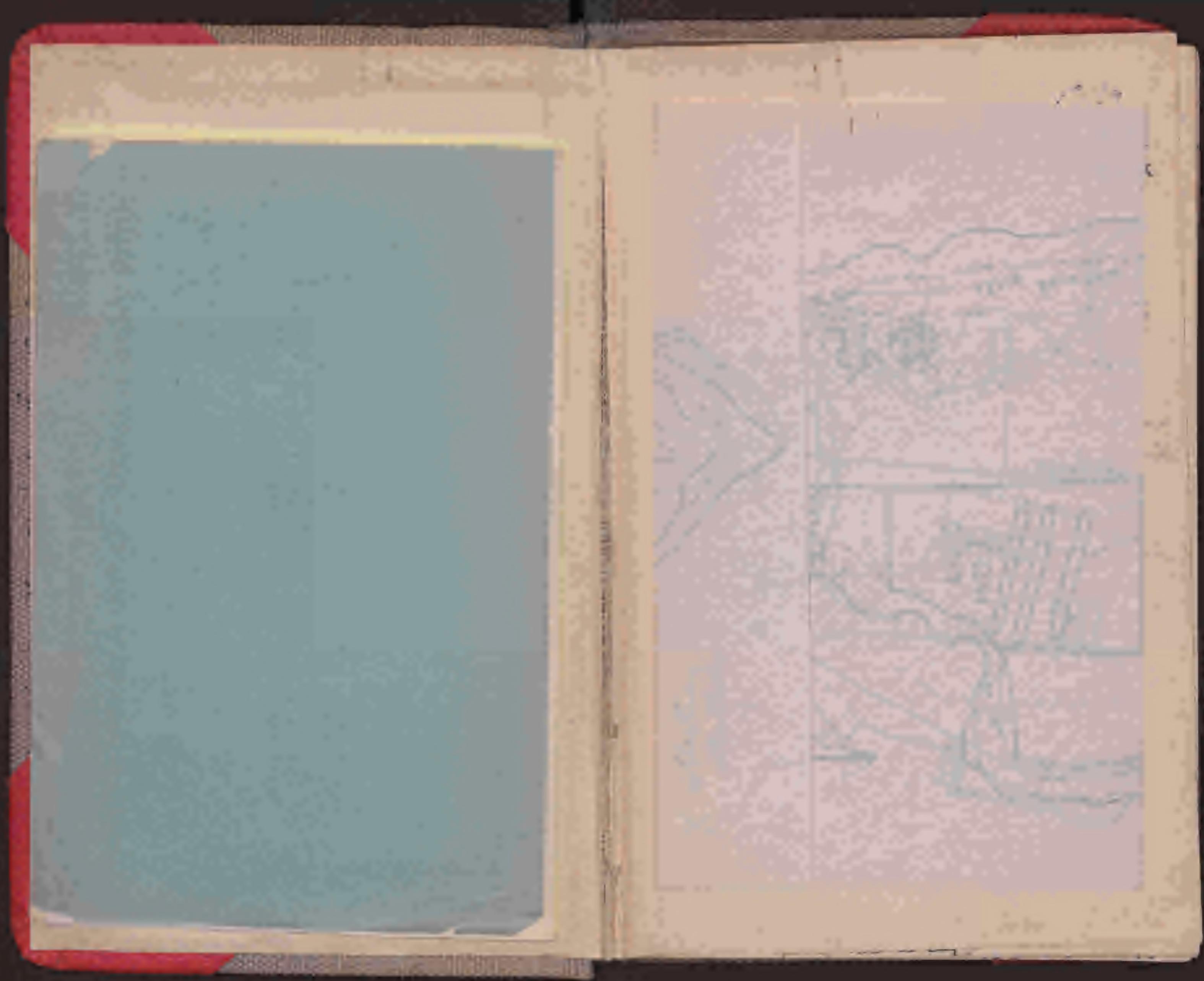
FROM : T. H. Hastings

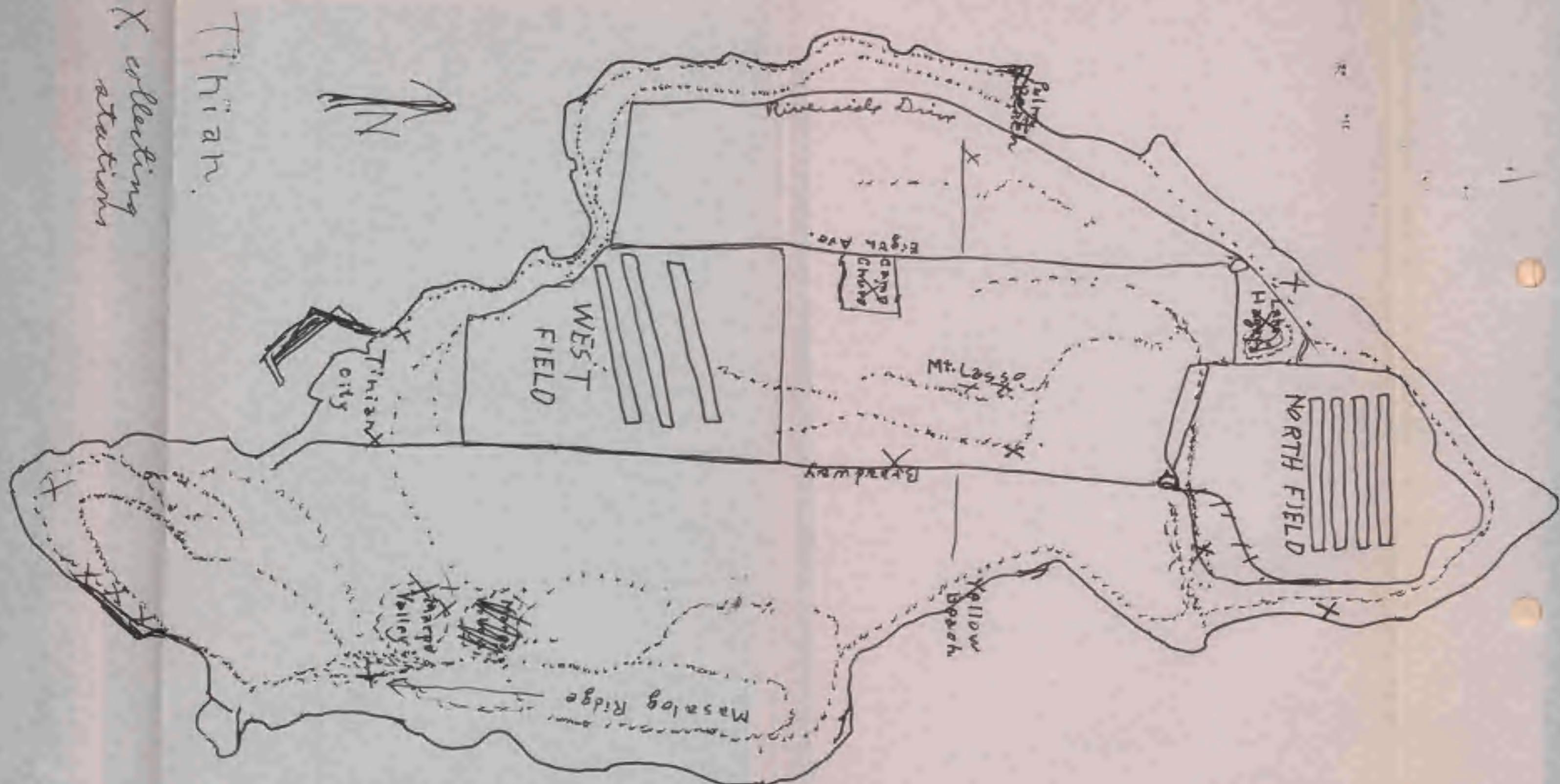
SUBJECT: Collection of Hungarian Post

Do you have any written application of Bond from Stevenson from the  
U. S. G. O. subcommittee. The application being due to the U. S.  
Postmaster, Hastings, to you may not come in the postoffice. I would  
recommend that you go to the postmaster or any that are reliable. Furthermore,  
I would like a copy for the file association with the existing bonds.

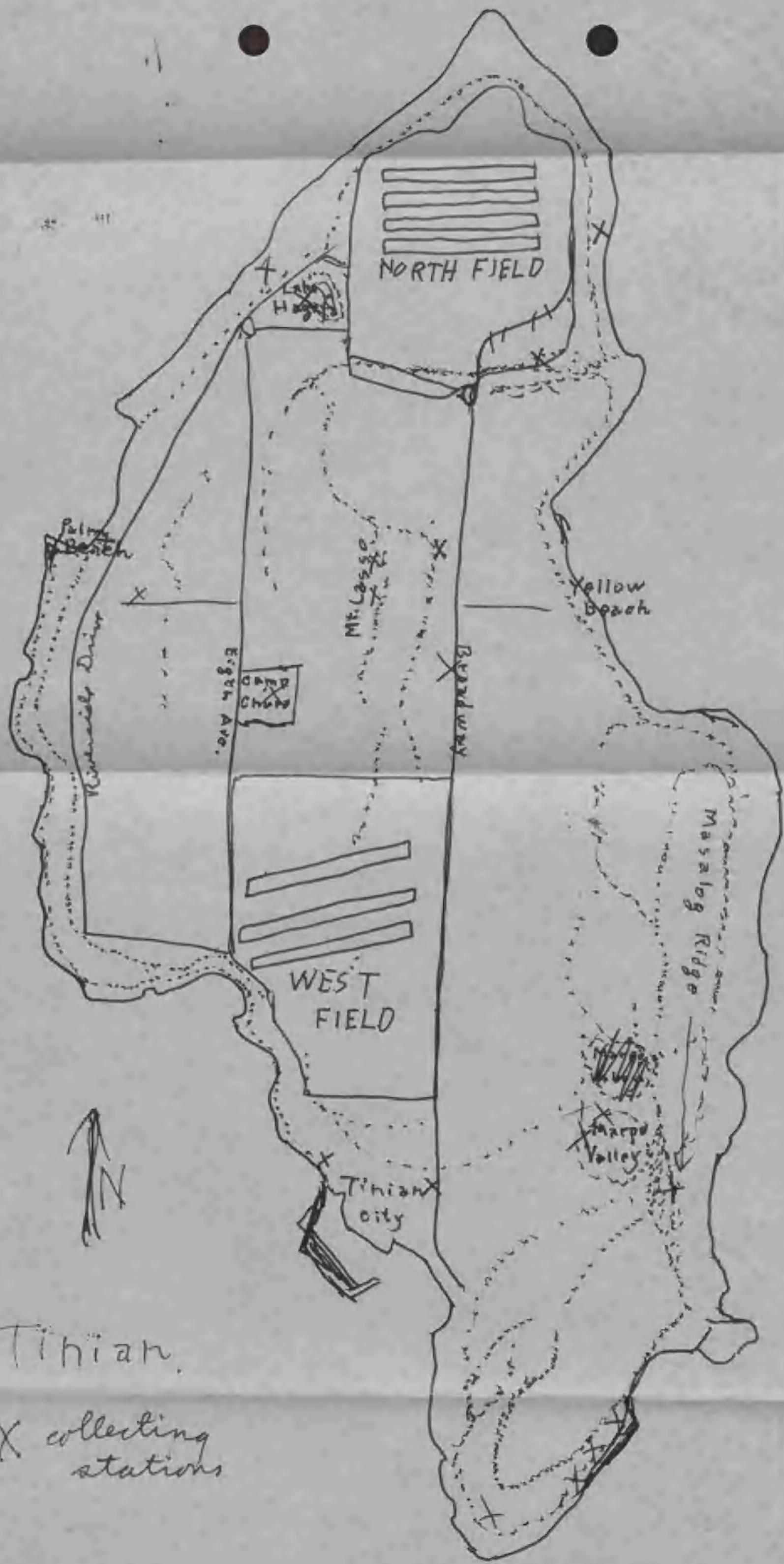
John A. Stevenson  
T. H. Hastings

Bureau of Engraving and Printing





X collecting stations



Mrs.  
1945 —

4

Collection number book  
of F. R. Fosberg

No. 24725 — 24941

Descriptive pages  
and photographs



2 1945 - Virginia

Nov. 25 - Lee Boulevard

north of Fairfax  
gentle slope wooded principally  
with *Fagus grandifolia*  
24225 *Selaginella apoda*

Dec. 3 - Sleepy Hollow, 1 mi.

s. of Falls Church, Fairfax Co.  
*Quercus phellos* L.  
edge of pasture in cleared  
bottom land

✓ Dec. 3 - 2.3 mi. s.e. of main  
intersection, Fairfax, Fairfax Co.  
dense pine forest (about 30 years old)  
with little underbrush, gentle slope.

27 *Lycopodium complanatum* var. *flabelliforme*  
small patch

28 *Polystichum acrostichoides*  
occasional

29 *Chimaphila maculata*  
common

30 *Chimaphila umbellata*  
local

31 *Mitchella repens*  
abundant

Dec. 3, - along Turkeycock Run,  
1/2 mi. n. of Fairland, 6 mi. n. of  
Alexandria, Fairfax Co.  
*magnolia* bog (Prov. Natl. for Wash.)

3 Fairfax Co.

prostrate, pale green

tree 20 m. tall, 12 dm. thick

prostrate, extensively  
creeping, sterile.

rhizome erect, fronds  
prostrate or ascending,  
erect from prostrate  
underground rhizome, leaves  
dark green, central portion  
whitish.

erect from prostrate underground  
rhizome, leaves dark green,  
glossy.

prostrate, dull, dark  
green, berries scarlet.

*sphagnum* on white gravel  
water

4 1945 - Virginia - D.C.

24232 *Lycopodium obscurum*  
common locally, large patches

33 *Lycopodium lucidulum*  
rare, local.

34 *Alnus serrulata* Willd.  
common

35 *Rhus vernix*  
common

36 *Magnolia virginiana*  
common, characteristic  
tree of this type of bog.

Nov. 26 - Washington, D.C.

12th & C Sts. S.W.

in edge of lawn along sidewalk

37 *Polygonum*

Dec. 3, 1945 -

Bird Sanctuary

Potomac River, Arlington  
thicket at edge of slough

38 *Ailanthus altissima*

39 *Platanus occidentalis*

Dec. 9, 1945 - Sleepy Hollow, 1 mi. S.  
of Falls Church, Fairfax Co.

thickly wooded bottom land,  
low second-growth woods.

40 *Amelanchier*

41 *Acer rubrum*

42 *Liquidambar styraciflua*

Fairfax Co.

5

erect from prostrate  
underground rhizomes.  
spike straw colored.

erect, dark green  
shrub 3 m. tall

small tree 4 m. tall

small tree 6 m. tall,  
a few leaves persisting,  
white beneath.

fls. pink.

small sapling

small tree 4 m. tall, 4 cm. thick,  
bark smooth, exfoliating.

small shrubby tree, 3 m. tall.

small tree, 4 m. tall

small tree 6 m. tall, branches  
green

6  
1945 - Virginia

1946

✓ Dec. 30, 1945 - same  
24243 *Morus*  
44 *Viburnum prunifolium*  
common

-1946-

Feb. 3 Roaches Run  
Bird sanctuary, Potomac  
River, Arlington Co.

45 *Ailanthus altissima*  
roadside ditch

March 10 Sleepy Hollow, 1 mi.  
s. of Falls Church, Fairfax Co.

46 *Catalpa*  
bushy old field  
47 *Crataegus* [Discarded, sterile, winter spines]  
scattered trees in pasture  
48 *Myrsinaceae*  
on dead log of *Acer rubrum*,  
*Quercus palustris*, *Ulmus americana*

7  
Fairfax Co.

sapling, ~~too~~ much branched, 3 m. tall  
tree 5 m. tall, 12 cm. thick,  
surrounded by bushy  
root sprouts.

small colony, probably  
a clone, of saplings of  
various ages, 1-5 or 6 years,  
fasciated, but only toward  
the end of each season's  
growth, the fasciations  
of various forms.

sapling 3 m. tall, freely  
branched.  
much branched small  
tree 4 m. tall, bark <sup>light</sup> gray,  
spines shiny dark brown,  
buds reddish.  
black paint-like patches  
on bark, black markings  
in wood.

8 1940 - Virginia - Illinois  
labeled

2449 March 17 - Sleepy Hollow 1/2 mi.  
s of Falls Church, Fairfax Co.  
*gaultheria pubescens*  
wooded slope, deciduous trees

Mar. 31 - Mulberry Grove,  
(4 mi. w. of Vandalia), Bond Co. Ill.  
Open road cut, brushy ravine  
and edge of woods

3450 *Erythronium album*  
road cut

51 *Dicentra*  
edge of woods

52 *Staphylea trifoliata*  
edge of woods

54 *wooded ravine*

55 *Claytonia*  
woods and wooded ravine,  
common

56 *Dentaria*  
wooded ravine, occasional

57 *Anemoneella*  
wooded ravine, common

58 *Phlox divaricata*  
woods, rare on flattish  
ground under ravine

9

leaves glaucous-green, variegated  
with white

bulb very deeply buried,  
leaves variable in width,  
blue-green with variable  
purple marbling, buds  
strell-pink, flowers  
white.

leaves glaucous, corn  
-pink, flowers white.  
flowers white.

bush, flowers white  
flowers white

corn somewhat flattened,  
stem decumbent at base,  
leaves somewhat fleshy,  
flowers white with pink  
veins.

rhizome moniliform with  
large segments, flo. white.  
flowers quite pink  
stoloniferous, flowers  
purple.

1946 - Illinois - Penna. - Va.

24239 *Antennaria plantaginifolia*

common on roadsides banks

21 *Cercis canadensis*

occasional in woods

April 2, 1946 - 3 mi. e. of  
Washington, Pa.

61 *Corydalis flavula*

black ground, possibly  
burned sometime back,  
under roadside trees, rare.

April 14 - Sleepy Hollow, mi.  
s. of Falls Church, Fairfax Co.

62 *Berberis thunbergii*

wooded bottom land, well  
established

forming considerable  
patches  
shrub, calyx red,  
corolla pink.

flowers yellow

straggling shrub 1 m. tall,  
fls. cream, bronzed without.

Maple 7 A steep hillside 1 1/2 mi. S. of Falls Creek, Fresno Co.

April 20 - Turlock, Stanislaus Co.  
cultivated ground around  
dwellings, watered, sandy loam

24263 *Poa*

common weed, sun or shade

64 *Malva*

common weed, sunny places

65 *Acacia verticillata* Willd.

cultivated

66 *Sequoia sempervirens* Endl.

cultivated, around drain

67 *Hedera helix* L.escaped from cultivation,  
established.68 *Vinca major*

escaped from cultivation

69 *Oxalis*

escaped from cultivation, common.

70 *Oxalis*

escaped from cultivation, common

71 *Oxalis cernua*escaped from cultivation,  
common72 *Amsinckia*

abundant in field

petals glabrous, pinkish,  
emarginate, little if any  
longer than calyx.  
straggly pronged shrub  
3 m. tall, fls. yellow.  
~~small~~ young tree 4 m. tall  
heavy woody vine, leaves  
dimorphic.

vine, flowers blue-violet  
corms thick, tuberous, multi-  
plying by offsets. flowers  
bright pink with purple  
lines toward center.

corms thick, tuberous, multi-  
plying by offsets. flowers  
white. Probably a sport  
from D 24269.

stoloniferous, small plants  
from bulbs. flowers bright  
buter yellow.  
flowers orange.

1946 - Dahr

April 27 - Driving around Lanikai, Kailua, up over Nuuanu Pali, down Nuuanu Valley - around Honolulu - notes on distribution of introduced plants.

Lambertia sp. - rare in 1937 - only noted in open air theater at University, now fairly common in cultivation around Honolulu.

Asystasia gangetica - noted in 1937 as established near University campus in a vacant lot - now one of the common weeds in Lanikai, Kailua and Honolulu, not up very high on Kailua-Honolulu road. Both purple and white forms noted, but purple much more common.

Paederia foetida - common along Nuuanu Pali road and even in Nuuanu Valley.

Augastonium adenophorum - common along Nuuanu Pali road.

Catharanthus roseus - established in Kailua.

Verbena enceliaefolia - in the thirties only seen near Molauia and Pearl Harbor - now one of the common weeds in Kailua and many parts of Honolulu.

Spathoglottis plicata - in evident now everywhere where there is any amount of rain. Pali rd., Waikane, Manoa, etc. common.

Messerschmidia argentea - common around Pearl Harbor, planted by Navy (Don Anderson).

16i 1946 - Oahu

April 23 - Waikane - Schofield  
Trail, Schofield side.

bushy forest, ridge top 2400-2500'  
74273 *Panthonoxylum*  
74274 *Gouldia*  
75 *Gouldia*  
76 *Gouldia terminalis*  
(criacea with st. influence of typica)  
Apr. 23 - same summit ridge  
bushy windswept crest 2600-2800'  
77 *Gouldia terminalis* var. *criacea*  
beside of  
78 *Gouldia st. johnii* (st. contaminated  
by *G. terminalis* v. *criacea*)  
windward side of  
79 *Gouldia st. johnii*  
windward side of  
80 *Gouldia*

17

with heavy oily fragrance when broken.  
tree 5 m. tall, flowers white,  
fragrant. (note small sepals)  
mass coll. 1 twig from a  
tree, flowering where  
possible. (with #24275-6.)  
small shrubby tree  
(buds fixed)  
same (buds fixed)  
small tree, leaves rather  
dull (buds fixed)  
flowers green  
bush 1.5 m. tall, fls. green  
(buds fixed)  
bush 1.5 m. tall, fls. green  
fruit immature, fruiting  
calyx lobes fleshy,  
divergent (buds fixed).  
mass coll. 1 twig from  
each of trees within  
reach of trail

Apr. 28 Waikane - Helefield  
trail, Kahana side

wet brushy forest on steep slope 2000'-2700'

24281 *Hedysotis* <sup>centranthoides</sup> *glomerata*

82 *Gouldia*

83 *Hedysotis* <sup>centranthoides</sup> *glomerata*

Apr. 28 name, Waikane  
Valley.

800' ~~2000'~~

84 *Ficus*

Planted along trail

suffrutescent herb  
with leathery leaves  
buds purple (1 bud fixed)

mass coll. 1 twig from  
each tree within reach  
of trail.

suffrutescent herb 1.5 m  
tall, fls. purple without,  
green within.

small tree, cauliflorous,  
fruiting abundantly  
on lower part of tree,  
more sparingly above  
and on larger limbs.

May 13 - Eniwetok Atoll

Parmy I. + Eniwetok I. have been denuded almost completely.

Japton I., Jieron I., Igoi I. and Mui I. seem still fairly well covered with vegetation.

May 13 - Eniwetok atoll,  
Eniwetok I.

24235 *Ipomoea alba*  
seaward slope of dune.  
very local.

26

26 *Euphorbia atoto*(?) *chamissonis*  
lower slope of dune, rare

27 *Ipomoea pes-caprae*  
seaward slope of dune,  
very local.

28 *Cassytha filiformis*  
parasitic on *Ipomoea pes-caprae*,  
rare.

same - sand flats around  
buildings

29 *Eleusine indica*  
common locally

30 ~~G~~ *Eragrostis amabilis*  
common locally

On Eniwetok *Zea mays*,  
*Solanum lycopersicum*  
and *Ipomoea purpurea*  
were seen in a garden.  
Tomato is said to do well.

prostrate, densely carpeting  
slope of dune, flowers  
white, closed in afternoon.  
leaves fleshy, veins  
conspicuously impressed above + below.  
leaves fleshy, white beneath.

prostrate, leaves somewhat  
thick, sterile except for  
one old fruit.  
leaflets parasite, stems  
green.

loose clumps, taller where sheltered.  
depressed bunches,  
mostly dead.

22 1940 Marshall Is.

24391 *Isocoma frutescens* (Mill.) Kr.  
common locally over entire island  
(commonest shrub on island)

92 *Cynodon dactylon*  
common locally

93 *Messerschmidia argentea*  
occasional generally

94 *Guettarda speciosa*  
rare (possibly planted)

95 *Tharauda involucrata*  
rare, one mat seen

96 *Portulaca oleracea* L.  
common

97 *Portulaca quadrifida*  
very common

98 *Lepturus repens* var. *subulatus* Forb.  
common everywhere

99 *Triumfetta procumbens*  
common

24300 *Lemnaceae*  
occasional

01 *Fimbristylis cymosa*  
common

Eniwetok atoll

23

rounded bush 1 m. tall,  
corolla white within,  
thickened parts green  
without, fruits white, fleshy,  
forming dense mats, scape  
erect.

shrub 1.5 m. tall, leaves  
silvery-green, fleshy,  
flowers white.

shrub 2 m. tall, stem

prostrate, forming  
thin close mats on sand.  
prostrate, fleshy,  
purpleish.

prostrate, dense, fleshy,  
purpleish, leaves thick  
but compressed, arranged  
in flattened masses,  
flowers yellow, about  
15-20 mm. across,  
style branches 5, anthers  
about 1.5. root thickened.  
forming bunches but  
with runners forming  
mats.

prostrate, stems several  
m. long, branched, forming  
mats, flowers yellow.  
leaves fleshy.

loose small tufts

tufts, leaves rather stiff.

May 14 - Igoor Islet,  
 Eniwetok Atoll  
 flat sand mixed with  
 coral fragments, slight  
 swale in center but this  
 has been destroyed by  
 naval installation  
 (no makatea noticed)  
 (no Pandanus seen)  
 (one Cerbera seen, not collected.  
 sterile grass seen, not coll.)

24302 *Morinda citrifolia*  
 not common, but several  
 small patches noticed

03 *Cordia subcordata*  
 only one small patch seen  
 in rather low brush toward  
 east end of island

04 *Pisonia grandis*  
 common in wooded central  
 part of island, this plant  
 on inner beach.

05 *Ipomoea alba*  
 occasional on inner margin  
 of woods

06 *Boerhaavia diffusa*  
 occasional patches in open shaded  
 sandy places,

vegetation is basically  
 a tall brush of *Haematoxylum*  
 with *Guettarda* quite  
 common, and *Pisonia*  
 common in main part  
 of island but dropping  
 out toward the ends.  
*Messerschmidia* is  
 common on the outer  
 and inner edges, but  
 scarce inland. *Suriana*  
 only on west end, not com.  
 Coconuts planted, especially  
 at center

small tree 4 m. tall,  
 leaves somewhat glossy  
 above, flowers white  
 shrubs 1-2 m. tall,  
 completely sterile.

wind-beaten tree 5 m. tall,  
 staminate, flowers  
 fragrant, ~~perianth~~ green  
 but with revolute edge  
 whitish.

vines mostly dried up at  
 this season. leaves of old  
 plant fleshy. (the better  
 leafy branch from a  
 different plant, just starting  
 this season's growth.)

prostrate, forming large  
 thin mats. stems + petioles red,  
 leaves whitish beneath, fls. pink.

24307 *Portulaca lutea*  
several small patches  
near inner beach, in  
rather open places

08 *Pisonia grandis*  
common on main part  
of island.

09 *Canavalia cathartica* Thunb.  
occasional on inner side.

10 *Suriana maritima*  
occasional, but only in  
open places on extreme  
west end of islet

11 *Triumfetta procumbens*  
common but very locally,  
mostly on open sand.

12 *Guettarda speciosa*  
very common throughout  
vegetation

13 *Caseytha filiformis*  
occasional (this one  
parasitic on Guettarda)

14 *Leucocoma putrescens* (Mill.) Kr.  
the dominant plant in the  
vegetation, forming in  
most places a dense bush.

15 *Messerschmidia argentea*  
common, especially along  
outer edges of vegetation

— stems ascending,  
gray-brown, thick, whole  
plant fleshy. (no fls.  
seen)

— shrub 2 m. tall, pistillate,  
very few seen with fruit.

— vine climbing over trees,  
fruiting ones dead, living  
ones sterile.

— bush 1 m. tall, flowers  
butter-yellow. (only  
this one bush seen flowering,  
others all past fruiting).  
prostrate, leaves fleshy,  
flowers yellow.

— shrub 1.5 m. tall (others  
several times as tall),  
flowers white, very  
fragrant, fruits apparently  
not quite mature.

— leafless parasite, stems  
yellow-green.

— shrub 5 m. tall (commonly  
this tall except toward ends of islet)  
flowers white (even on thick  
parts) with purple markings  
in sinuses.

— tree 5 m. tall, (others even  
taller), leaves silvery green,  
fleshy, flowers white, fragrant

24316 *Cocos nucifera* L.  
commonly planted almost  
throughout islet.

(a single tree of *Mangifera indica*  
and one of *Artocarpus altilis*  
reported on good authority, not seen  
by me.

May 15 - Japtan Islet,  
Eniwetok Atoll

flat coral sand toward  
inner beach, becoming  
more and more rocky  
toward outer beach and  
along passage.

Vegetation basically  
a brushy <sup>frag</sup> of *Scorodola*,  
*Pisonia*, *Quettarda*, *Cerbera*,  
with some *Morinda citrifolia*,  
scattered *Pandanus*, the  
inner portion planted  
to *Cocos*.

The *Pisonia* is mostly  
rather small, but with  
some larger trees. These  
almost leafless - possibly  
because of the dry season.

tree 10 m. tall, leaves  
several m. long; panicle  
enclosed in a woody  
spathe before anthesis,  
at anthesis both ♀ & ♂  
of flowers and panicle  
ivory-white, resembling  
carved ivory (specimens  
represent only small  
fragments of panicle & leaf).

The number of husks  
on ground indicate that  
copra was produced  
here before the war.

*Pisonia* is in flower and  
so abundantly so that  
the air is perfumed.

This vegetation is  
very disturbed, both  
by bomb craters,  
bulldozer activity,  
and with a maze of  
roads.

The forest becomes  
much lower and more  
scrubby toward the outer  
beach, as the ground  
gets rockier and rockier.  
Nowhere is there the  
dense solid growth  
observed on Iquin.

The *Pandanus* is not especially  
variable, except in leaf length.

24317 *Pandanus tectorius* Park.  
occasional, especially  
toward inner beach.

18 *Guettarda speciosa* L.  
common throughout  
island

19 *Xanthevia americana* L.  
very rare, 2 plants seen on  
nibble toward outer beach

20 *Zenosia indica*  
around village

21 *Fleurya nideraliz* Gaud.  
occasional

22 *Trinmpetta procumbens*  
common

23 *Portulaca quadrifida* L.  
openings, common

24 *Cenchrus echinatus*  
rare, ~~around dwellings~~

25 *Lepturus repens* (Forst.)  
common in openings, this clump  
on lagom beach.

26 *Portulaca lutea* Sol.  
common in open places

27 *Setaria verticillata*  
rare, one clump seen in  
bottom of ~~bottom~~ excavation

tree 8 m. tall, sparsely  
branched, fruit green  
distally, ~~yellow~~ fleshy  
part yellow, sweet, with  
peculiar ether-like flavor,  
not at all irritating,  
eaten by natives.  
shrub 2 m. tall,  
fruit green, fls. white.

rigid bush with weak  
spines, leaves yellow-green,  
fls. yellow, fruit immature  
small tufts

stems red, fleshy, leaves  
glossy, low rounded  
bushy herb.

prostrate, root system very  
extensive, as long as branches, sterile  
prostrate, roots enlarged,  
plant fleshy, fls. yellow,  
dense clump.

dense clump of erect culms  
with ~~the~~ runners  
spreading from sides of clump.  
spreading, stems fleshy,  
leaves fleshy, flowers  
yellow 1.5 cm. across, stamens  
many (over 25).  
dense clump.

24328 *Fimbristylis insularis* (L.) Mez  
small patch in open ground

29 *Ceratodon purpureus* *Obione* *Obione oppositifolia*  
common in bushy vegetation  
on rocky ground

30 *Carrythia filiformis*  
parasitic on *Guettarda*, the  
host completely covered and  
almost dead.

31 *Terminalia catappa* *sandwicensis* Reichenb.  
rare, 2 small trees on rocky  
ground along passage.

32 *Pisonia grandis*  
very common, co-dominant  
to dominant in vegetation.

33 *Tacca leontopodioides*  
rare, one clump seen ~~at~~  
in rocky soil in opening.

34 *Boerhaavia diffusa*  
occasional

35 *Morinda citrifolia*  
common

36 *Scaevola frutescens*  
abundant, co-dominant in  
vegetation

37 *Pisonia grandis*  
very common, co-dominant  
in vegetation.

38 *Cordia subcordata*  
rare, one tree seen on inner beach

small bunches.

small tree 5-5 m. tall,  
buds white, fruits on  
ground beneath.

- leafless parasite, stems  
yellowish green, flowers  
white.

tree 4 m. tall, densely  
branched, fruit immature.

low trees, some getting  
~~very~~ large.

leaves just unfolding,  
tubers about  $\approx$  5-8 cm.  
below surface of soil.

- prostrate, stems red,  
small tree 3-4 m. tall, leaves  
glossy, flowers white,  
fruit translucent, when  
decomposing with a power-  
ful strong odor.

- shrub 1.5 m. tall (others  
much taller), flowers  
and fruit white.

- shrub 3 m. tall, flowers  
green with whitish <sup>ripened</sup> margins,  
fruit immature.

- tree 10 m. tall; flowers  
delicate, brilliant orange,  
fruit green.

24339 *Messerschmidia argentea*  
common, especially along beaches

40 *Digitaria pumila* var. *microstachys*  
fairly common in open  
places and under coconuts

41 ~~Thlaspi~~ *Thlaspi involuta*  
occasional in sandy places  
toward inner beach

42 *Pisonia alba*  
abundant, climbing over  
everything

43 *Fimbristylis cymosa*  
common in open sandy places

44 *Eragrostis amabilis*  
common, especially in open  
sandy places.

May 16 - Aomon Islet,  
Eniwetok Atoll

flat, very broad from  
lagoon to outer beach.  
mostly sandy flats,  
changing to broken coral  
rocks as outer beach is  
approached.

Practically entire islet planted  
to coconuts. The inner part  
cleared beneath, with a grass  
covering of mixed *Lepturus repens*  
and *Eragrostis amabilis*. Near  
the outer beach a brush of  
*Scaevola* and *Pisonia* occupies  
the space beneath the trees. This  
seems to be occasionally cleared

tree 5 m. tall, flowers white,  
- fruit green, ~~fleshy~~ fleshy,  
small bunches

very prostrate, forming  
large thin mats,  
- fruiting spikes erect.  
extensive vine; leaves  
not fleshy, flowers  
white,  
tufts

spreading, prostrate tufts.

out, and in any given place  
seems to be of uniform age.  
Here and there it is mixed  
with *Morinda* and *Guettarda*  
with occasional *Messerschmidia*.  
The latter forms a conspic-  
uous fringe around the  
outer and channel beaches.  
just inside this *Cordia* is  
rather common.

Two *Coenhras* are common, one more  
so ~~toward~~ toward the outer, the other toward  
the inner beach, but both present  
both places, not noticeably intergrading.

Coconut "waeni" and *Pandanus* "Dof"  
not collected. Informants chief Joseph  
and chief Brown Smith.

24345 *Fimbristylis cymosa*  
local in grassy open  
land under coconuts near  
inner beach.

46 on stone walls of well in  
center of island, brackish water

47 *Eragrostis amabilis*  
common in sandy disturbed  
places, along trails and around  
village.

48 *Achyranthes aspera*  
one small patch near  
center of island.

49 *Ipomoea alba*  
common toward ~~water~~  
~~water~~ outer side of island.

50 *Morinda citrifolia*  
common locally, especially  
toward outer beach

51 *Cordia subcordata*  
common along a strip just  
in from the outer beach

52 *Messerschmidia argentea*  
abundant along outer and  
channel beaches, occasional  
inland.

53 *Lepturus repens*  
abundant throughout the island,  
especially in open places,  
where it is the dominant plant.

54 *Thraupis inornata*  
occasional on wavy soil  
toward ~~water~~ outer beach

Tufts, spikes already  
shattered.

"berejisman"

— greenish, slimy to  
coat on stones.

spreading loose clumps.  
"ujos" (perhaps ~~so~~ simply  
meaning "grass")

erect herbs, m. tall.  
"halekalek"

vine climbing over  
brushes. "bel"

bush 3 m. tall, flowers  
white, ripe fruit white,  
looking like a potato "nen"  
sterile shrubs 2-3 m.  
tall. "kono"

tree 7 m. tall, flowers  
white, leaves fleshy,  
silvery green. "kirin"

Tufts, spreading by  
runners. "ujos aitok".

very prostrate, forming  
thin mats; sterile.  
"ujos maro".

24355 *Digitaria purpurea* var. *minibacca*  
rare, on wet ground near  
outer beach  
56 *Boerhaavia diffusa*  
common on wet ground  
near outer beach.

57 *Pisonia grandis*  
co-dominant with *Seavola*  
in basic vegetation of island.

58 *Portulaca lutea*  
common, especially in open  
places.

59 *Lida fallax*  
common in openings, especially  
toward outer beach.

60 disease on *Lida fallax*  
Not determinable.

61 *Seavola fruticosa*  
co-dominant with *Pisonia*  
*grandis* in basic vegetation  
of island

prostrate rooting at nodes,  
culms spreading to ascending  
— "ujos bulkuli"  
prostrate, stems red.  
leaves purple beneath, thin,  
flowers pink. (found  
with # and not  
especially intergrading  
with it) "matole"  
(not seen fruiting) (not  
seen affected by *Albugo*)  
shrub 3-4 m. tall,  
stems brittle (others  
seen much larger)  
"kañae" (pronounced kanga)  
stems reclining to  
ascending, whole plant  
fleshy, flowers not seen  
(11:30 a.m.). "kiran".  
shrubs 1-1.5 m. tall,  
flowers orange with  
red patches just above  
claws of petals, making a  
red-centered flower. "kio"  
(attached by powdery mildew<sup>#4360</sup>)  
plants more or less  
~~red~~ unhealthy looking,  
practically sterile, when  
heavily infected.  
bush 1 m. tall (others  
to 3 m. or more), flowers  
white, sinuses tending to be  
purple marked "mai kinat"

224362 *Boehavia diffusa*  
common, especially inland  
(but growing with #24356 and  
not especially intergrading with it)

#  
63 *Albugo boehaviae* (Albugo) (var.)  
fairly common on *Boehavia diffusa*,  
but only on the fleshy-leaved  
form of it (var. *tetrandra*?)

64 *Guettarda speciosa*  
common throughout island.

65 *Cassytha filiformis*  
parasitic especially on  
grass (*Lepturus repens*, etc.)  
but on other plants also, very  
abundant.

66 *Trumfetta procumbens*  
common throughout island  
especially in open places.

May 17 - Eniwetok I.

Eniwetok atoll

sandy flats around buildings.

67 *Euphorbia hirta*  
rare, one plant seen

68 *Vernonia cinerea*  
local

69 *Digitaria* sp. on sandbank  
local

prostrate, stems green  
to reddish, leaves sub-  
fleshy, white beneath,  
flowers pink (larger than  
in #24356) "match aitoh"  
(commonly attacked by albugo<sup>#24363</sup>)  
producing a conspicuous  
alteration in growth  
habit)

shrub 2 m. tall, flowers  
white, ripe fruit white,  
fleshy, subglobose.  
"wut"

forming great patches  
on grass, stems yellow-  
green; flowers white,  
fruit translucent white,  
pericarp surrounding  
but not touching ripened  
ovary. "kenes"

main stems prostrate,  
branches erect (in shade,  
in full sun entirely  
prostrate), flowers yellow.

tips arching.

herb up to 1 m. tall,  
flowers purple.

42 1946 Marshall 9-

124770 *Mirabilis jalapa*  
one plant seen

71 *Lida fallax*  
occasional near west end of islet.

72 *Amaranthus viridis*  
one small patch seen

May 16 - Nasabla collected  
*Pemphis acidula* and  
*Suriana maritima* on  
Piirasi islet, saying they  
were abundant.

May 17 - R. Oakley collected a  
specimen of *Artocarpus altilis*  
on Japstan Islet. It represented  
the one tree. (records of natives  
visiting Japstan to collect  
breadfruit apply to Pandanus,  
which the naval people  
mistook for breadfruit.  
Oakley searched for the  
unmored mangos but was  
unable to locate it.

Eniwetok atoll

43

bushy herb, flowers crimson,  
closed at 11:20 A.M.

— plant prostrate (others seen  
more or less upright), flowers  
orange, with reddish spots  
— on petals just above claw.

prostrate, stems purple  
striate, spikes purplish.

May 18 - Edge of islet,  
Eniwetok atoll

This islet was almost completely denuded. At the outer end a few tattered remnants of forest remain, mostly *Pisonia* and *Messerschmidia*, with *Scaevola* between.

In other parts there is grass and flats on which the bushy vegetation is beginning to come back. This process is interesting in that it is almost unaccompanied by succession. Of course, a few weeds gain a foothold in many places before the *Messerschmidia* and *Scaevola*, and in the grassy parts a definite vegetation develops. The grass is mainly *Lepturus* and *Eragrostis*. It seems to retard rather than further the development of the bushy type, which in the more gravelly or rocky types of soil comes back directly.

I would judge that the *Pisonia* is a later member of the vegetation, coming in in the shelter of the *Scaevola*

and *Messerschmidia*.

Remnants of cultivation are scattered here and there over the island, especially in the more sandy places and around buildings. Tomatoes form luxuriant vines and excellent fruits, though very few fruits were setting when we were there.

Cucurbits of several kinds seemed to do fairly well, though they were more or less chlorotic and set few fruits. *Ricinus* was flourishing as a dooryard plant. Mr. MacMillan mentioned a gourd (prob. *Lagenaria ciceraria*) which I didn't see. Most surprising of all was a small patch of broom corn.

The coconuts were almost all gone.

How the single bush of *Pluchea odorata* got there is hard to guess.

24373 *Digitaria pruriens* var. *minuta*  
common locally, especially  
around buildings

74 *Solanum lycopersicum*  
small patches, persisting  
from cultivation

75 *Citrullus vulgaris*  
small patches, persisting  
from cultivation

76 *Cucurbita maxima*?  
growing over bomb-shelter.

77 *Ricinus communis*  
planted around building

78 *Cenchrus echinatus*  
very abundant over all  
the island

79 *Cynodon dactylon*  
common locally

80 *Cucurbita maxima*?  
one patch seen, persisting  
from cultivation

81 *Morinda citrifolia*  
rare, 2 or 3 bushes seen

82 *Vernonia cinerea*  
common in one place

83 *Sorghum vulgare* var. *technicum*  
persisting from cultivation

84 *Eleusine indica*  
common everywhere

loose bunches, tending  
to cover the ground.

vines luxuriant but  
flowering sparingly,  
setting very few fruits.  
plants prostrate, glaucous,  
yellow, fruits globous,  
weakly striped, immature.  
(plants chlorotic, setting  
few fruits).  
plant prostrate, leaves  
with gray patches,  
flowers yellow, fruit  
very immature.  
shrub 2 m. tall, staminate  
flowers yellowish, pistillate  
red.  
spreading tufts.

forming dense turf  
prostrate, extensively  
creeping, flowers yellow,  
leaves green, without grey spots.  
bush 1.5 m. tall, flowers  
white, leaves glossy.  
erect herb, up to 0.8 m.  
Tall, heads purple.  
erect herb 2 m. tall.

plants vary in size  
with protection of location.

48 1946 - Marshall Is.

24385 *Euphorbia chamaesyce* Binn.

86 *Fimbristylis cymosa*  
common near inner beach

87 *Eragrostis amabilis*,  
common everywhere

88 *Brassica*  
in open field, only one  
seen, ~~the~~ probably persisting

89 *Liodia pallida*  
common locally

90 *Amaranthus dubius*  
small colony near  
windward side

91 *Wedelia biflora* DC.  
local on sandy or rocky  
bluffs.

92 *Setaria verticillata*  
common this plant from  
slope of rubble pile

93 *Liodia pallida*  
common, especially toward  
~~windward~~ outer beach

94 *Boehmeria diffusa*  
common locally on outer  
beach

49 Eniwetok atoll

leaves pale beneath,  
flowers sticky-  
tufts

prostrate spreading  
tufts.

leaves opposite,  
petioles white.

herb up to 0.8 m. tall,  
stems reddish.

prostrate with ascending  
branches, forming  
extensive low tangles.  
rays yellow. leaves  
more or less fleshy.

shrub 0.7 m. tall, flowers  
orange with reddish  
spots above claws of  
petals.

prostrate from thick root,  
~~the~~ stems red, leaves  
somewhat fleshy, pale  
or reddish beneath,  
flowers pink.

24395 *Lepturus repens*  
common all over islands

96 *Messerschmidia argentea*  
common, especially toward windward side, codominant.

97 ~~guttmunda~~ *Seavola fontanesii*  
~~guttmunda~~ common, especially toward outer beach

98 *Guettarda speciosa*  
occasional

99 *Fleurya undulalis* Gaud.  
local ~~on~~ ~~on~~ on roadsides

24400 *Portulaca quadrifida* var. *conspicua*  
common everywhere in open ground.

01 *Trumpetia procumbens*  
common

02 *Pisonia grandis*  
common toward ~~road~~  
outer beach

03 *Tribulus cistoides* L.  
one small patch seen in open flat.

04 *Ipomoea pes-caprae* (L.)  
patch near east passag

05 *Plumeria odorata*  
one bush seen, ~~no~~ is somewhat sheltered by embankment.

bunches with runners spreading from them small tree 5 m. tall, flowers white, leaves silvery green, fleshy. rounded bush, flowers and fruits white.

bush 1.5 m. tall, flowers white.

stems red, fleshy.

prostrate, fleshy, flowers yellow, 1 cm. across, petals apiculate.

prostrate, extensive fl. orange-yellow.

small tree 4 m. tall (others much larger), leaves on ~~inner~~ <sup>upper</sup> side of tree fleshy, ~~glossy~~ <sup>glossy</sup> other side thin & dull.

prostrate, extensively creeping, flowers yellow, one at or near end of each stem.

prostrate, extensively creeping, leaves fleshy, scarcely notched flowers purple, open during forenoon.

low rounded bush, 1 m. high, bracts pinkish.

52 1946 - Marshall Is.

14426 *Ipomoea alba*  
common

07 *Chloris implexa*  
common here and there  
about buildings

08 *Portulaca oleracea*  
common everywhere

09 *Cucurbita melo*  
a few plants persisting  
from cultivation

Eniwetok atoll

53

trailing on ground,  
lactiferous, leaves  
scarcey fleshy, veins  
impressed about.

prostrate often forming  
great matted-lily  
masses up to 1 m. or  
more across, fleshy,  
flowers small (5-6 mm.)  
stamens 10 or less.  
plants prostrate,  
flowers yellow,  
fruit about half grown.

May 23, 1946 - Moen I., saddle

of Mt. Tonaachan and main part of island  
weedy disturbed ground24410 *Chrysopogon aciculatus*" *Paspalum conjugatum*12 *Cenchrus*13 <sup>dark leaf spot</sup>  
rust on *Cenchrus* (24412)

May 23, 1946 - Moen I. old village

of Medhetin, w side of bay of Bou.

cultivated and weedy  
marshy land at base of hill  
on flat behind ~~a~~ ~~black~~  
shore14 *Morinda citrifolia* L.

above marsh level

15 *Columella trifolia*~~abundance~~ at and above marsh level16 *Physalis*just above marsh level.  
in deep <sup>green</sup> vegetation17 *Ipomoea reptans*growing in ponds in standing  
water.

- prostrate, clinging tightly to ground, scapes erect.
- stems prostrate rooting at nodes, scapes erect, spikelets divergent.
- culms spreading from root crown, spikelets cylindrical
- purplish brown spots on leaves.

- shrub 7 m. tall, flowers white.
- vine climbing on other vegetation, panicles flat-topped, fls. green.
- slender herb, tinged with other plants, flowers pale yellow with purple center.
- stems inflated; plant ~~reptans~~ said to have been introduced by Japanese, young tips eaten.

56 1946 Truk Is. (Carolines)

24418 *Ipomoea* *digitata* L.  
common

2 May 23, 1946 - Moen I. new location of  
Mechetin, on S. n. e. coast on pen-  
(informant about miles) a  
narrow mangrove swamp  
and village grounds back of it.

19 *Excoecaria agallocha*,  
common

20 *Rhizophora mucronata*  
dominant in vegetation

21 *Davallia solida*  
common on tree trunks at  
edge of and back of mangroves

22 *Hedyotis diflora*  
on base of tree trunks at  
edge of mangroves

✓ Ophrys - same loc. & date  
in Oahu & Japan

23 *Vernonia cinerea* (L.) Less.  
weedy ground around village

May 23, 1946 - Moen I.  
saddle bet. island and peninsula  
called labuk.  
abandoned cultivated ground,  
used as gardens by the Japanese

24 *Calotropis* *Hypothecaria* P. & C.

Moen I.

vine climbing in trees,  
flower bright purple.

57

lactiferous, flower thick,  
small tree, sap said  
to ~~be~~ *poison* cause  
skin irritation, "ousus"  
small tree with arching  
prop roots, flowers cream  
whitish, leaves with  
distinct mucus, leathery.  
"kata"

prostrate to ascending,  
leaves fleshy, pale  
beneath, corolla pale  
lavender, tube swollen,  
throat constricted, lobes  
erect. "nisarfonu"  
fls. purple. "ennentuko"

oatsley - same loc. & date  
rust on sugar canes (?)  
+ scab on citrus *aurantifolia*.

† tangled herb, strongly  
aromatic, flowers  
violet. "leketap"  
"nekeet"

1946 Truk Is. (Carolin Is.)

24425 *Wedelia biflora*common in openings all over  
island.26 *Passiflora foetida* L. var. <sup>hirsutissima</sup> (L.) <sup>(26)</sup> Willd.

common among weeds

27 *Cassia*28 *Vigna*

May 23, 1946, Moen Is. slopes  
of Mt. Tonaachau  
the slopes of this mountain,  
and apparently of others in  
the island group were apparently  
once well wooded. Native  
cultivation has broken down  
this vegetation completely.  
Breadfruit and coconuts have  
been planted to the tops of  
the mountains. Patches  
of woods (second growth)  
and thickets persist.

Moen I.

prostrate with ~~ascending~~  
branches, rays & disk  
yellow.

vine, flower white  
with basal part of  
corona lobes purple, fruit  
orange, sweet and  
of fair flavor, herbage  
with unpleasant odor  
but not strongly so.

erect herb 1.5-2 m. tall,  
flowers yellow. Said to  
have been used as a  
substitute for tea by  
the Japanese during the war.

vine with erect  
peduncles; flowers  
purple with a white  
straight keel. Eaten  
by natives and Japanese.

especially on steep places. The  
Japanese cut down many of the  
coconuts and breadfruit and planted  
sweet potatoes, which are still  
abundant. Many open places are  
covered by *Miscanthus japonicus*.  
The main trees and shrubs  
are *Glochidion*, *Premna*, *Acalypha*,  
#24439, etc. *Wedelia* is common.  
*Ipomoea* sp. #24413 covers the trees.  
*Manihot* is also commonly  
cultivated.

24429 *Premna diffusa* R. Br. (Lamiaceae)  
occasional in thickets30 *Glochidion*  
most common tree on slopes  
and ridges

31 rare on slopes, ridges

32 *Acalypha*  
very common on slopes  
in thickets33 *Stachytarpheta dichotoma*  
in open grassy places34 *Scleria*  
weed in cultivated field35 *Cyperus*  
weed in cultivated field36 *Dennisia* <sup>abandon</sup>  
weed in cultivated field37 *Macaranga*  
~~abandon~~ in thickets38 *Glochidion*  
in thickets, common  
39 *Commersonia bartramia* (L.) Merr.  
occasional on slopesshrub 2-3 m. tall, rather  
unpleasantly aromatic;  
flowers greenish white;  
fruit green, ripe one, black.  
small tree, wood pink,  
dense; flowers yellow;  
fruit green, seeds red.  
(wood sample)- shrub 3 m. tall, flowers  
- pink  
shrub 2 m. tallflowers deep blue-purple  
dense erect bunch  
small dense tuftssterile wine, leaves  
~~leaves~~, glaucous beneath.shrub 2 m. tall,  
fls. greenishshrub 3 m. tall,  
flowers yellowish.- shrubby tree 5 m. tall,  
fls. white.

May 24, 1946 - Folio Tol 9.

Mt. Uniboeet,

montane rain forest covering  
top third of mountain

24440

*Pteris*

common in shade

41 *Nephrolepis*

common in openings

42 *Glochidion*

occasional on slopes

43 *Asplenium*

base of tree trunk

44 *Piper*~~sk.~~45 *Cyperus*

along trail

46 *Psychotria*

common

47 *Selaginella volvens*

common on wet rocks

48 *Polyodium*

very local on top of mountain

49 *Eugenia*

rare

50 ~~Protos~~ *beccariana* *Cynometra*

one of the commoner trees in

51 *Piper*52 *Acalypha*

common

53 *Acalypha*

common

frond not plane, young  
ones especially with  
- pinnae raised.  
- small tree 15 m. tall.  
fls. yellow.vine, climbing in lower  
branches of tree, aromatic  
when broken.  
tuftsshrub 3 m. tall, flowers  
white.  
erect.

small tree

tree 20 m. tall, 3" dbh thick

vine, climbing in tree,  
leaves pale beneath,  
820'- shrub 2 m. tall,  
- staminate spikes weak.  
- shrub 1 m. tall, pistillate  
spikes erect, styles red.

24454

55 top of mt.  
*Macaranga*  
 common on top of mt.

56 *Psychotria*  
 common on top of mt.

57 occasional on top of mt.

58 *Psychotria*,  
 vrb. same as #24454,  
 growing with it.

59 *Cordyline terminalis*  
 scattered along trail

60 *Psychotria*  
 rare, one plant seen on top of mt.

61 common, *terrestria*

62 *gingiver*  
 occasional, top of mt.

63 common on top of mt., seeds  
 germinating everywhere

64 *Pipturus*  
 occasional on slopes

65 *Geococca herbacea*  
 common along trail on slopes

66 *Psychotria*  
 common on slopes

67 *Pipturus*  
 occasional on slopes

shrub 2 m. tall  
 fruit immature

- tree 10 m. tall

shrub 3 m. tall

tree 8 m. tall, spreading,  
 - flowers white.

shrub 1.5 m. tall,  
 fruit yellow.

— relatively small  
 plants only seen, buds  
 white "tin"

shrub 2 m. tall, flowers  
 white, stamens exerted.

— stems ascending, fleshy,  
 leaves thin, flowers but yellow  
 leaves dark green, paler  
 — below

large tree, aromatic, red  
 grated, mixed with coconut oil to  
 apply to hair.

shrub 2 m. tall.

prostrate, forming mats,  
 scapes erect, flower white,

- fruit red, fleshy.

shrub 1.5 m. tall, fruit  
 immature

shrub 7 m. tall, spine  
 pendent, stigma white  
 leaves clear green beneath

24468 *Panicum*

lower edge of native forest

69 *Randia carolinensis* Val.  
very common in entire  
forest70 *Randia carolinensis* Val  
very common in entire forest  
same - but lower slopes  
of mountain up to 250 m.  
mostly coconuts and  
breadfruit, with undergrowth  
and plots of Manihot, etc.71 *Psychotria*

rare in undergrowth

72 *Curcuma*  
rare in undergrowthsame - low to no rain  
bay, Fason villagebreadfruit, coconuts, etc. with  
small streams and under-  
growth, small patches of trees, etc.73 *Caladium bicolor*  
~~established~~ established locally  
in wet places74 *Citrus aurantiifolia*  
commonly cultivated75 *Paspalum vaginatum*  
abundant, dominant in marshes  
along bay.244700 - *Gymnocalycium*

( 70 )

tangled in undergrowth

tree 10 m. tall, flowers  
white.7800 clump of sprouts 3 m. tall  
fruits not completely grownshrub 3 m. tall, under  
white, "nen" (from  
leaves somewhat pungent,  
root lemon yellow within,  
aromatic, taste rose,  
flowers cream without, yellow  
within (no petals)).Colococcus seen here quite  
commonly.leaves white, veins and  
margin outlined in green,  
petioles purple.tree 5 m. tall, leaves dark  
green, fruit turning yellow.

Macaranga Dev

24476a *Crotalaria* *exterior*

in sand clearing

→ *Enhalus acoroides*  
 red flowers with yellow from  
 long leaves dried, twisted  
 into twine.

May 25 - Foloms, Udot  
 broad mangrove swamp  
 that have largely been  
 destroyed. When American  
 bombers sank oil tankers  
 the oil washed in among  
 the mangroves, caught fire  
 and burned them.

24476 *Sorindeia* 8 ft 3 in.  
 occasional77 *Bruguiera*  
 common78 *Bruguiera*  
 common79 *Hedyotis biflora*  
 edge of stone path in sand

erect, 1.5-2 m. tall, flowers  
 yellow wings with red line.

Macaranga Dev

78

79

tree 5 m. tall, pinnate  
 many, short - 1 mm -  
 shore narrowly conic, with  
 bushy tree 2 m. tall (others  
 much taller), elliptic, salmon  
 to reddish red, petals, calyx  
 prop roots close, massed  
 pneumatophores rounded,  
 knee-like

tree 5 m. tall, calyx + stamens  
 greenish, petals salmon-pink  
 prop roots close to trunk more  
 pneumatophores blunt, knee-like  
 prostrate leaves thick,  
 pubescent, flowers pale  
 lavender.

2445

occurred

May 2 - Udot I., Peni village  
fr. in wetty marsh and  
beach road mangrove  
with wet, but sparse

81 *Cyrtosperma merkusii* (Hessk.) S. D. Scott  
cultivated in marsh, Udot I.  
abundant.

6/1945

82 *Polygonum*  
common in edge of marsh

May 25 - Manito village,  
Udot I.

4 cultivated lowlands  
back of mangrove swamp  
and beach. 7 flats with  
marshes and tidal channel  
separated by hard, bare  
basalt outcrops which  
run right down to the beach.

bulky tree mostly  
unopened buds

leaves sweet petiole  
variably ~~spiny~~ spiny.  
leaves up to 2 m. tall  
and lush green, fuzzy,  
petiole curved where  
inserted in glads, ground  
about 1 m. tall spath  
light green, odor not  
unpleasant. ~~comes~~  
comes an important source  
of food eaten at about 2-3  
years, & flowering time  
these leaves from different  
plants do show variation  
- in frondiness. "pula"  
~~as~~ submerged stems  
extensive, flowers white.

Coconuts & breadfruits are principal  
crops - also Maniok and bananas.  
*Scleria* very common in marshes  
*Baringtonia racemosa* along  
tidal channels.

72 1944 Truk Is. (Carolines)

24483 *Derris*

at top of beach, locally  
common.

84 *Thespesia populnea*

84 *Thespesia populnea*  
occasional

85 *Bambusa vulgaris* Schrad. ex Willd.  
rare, planted.

86 *Banisteriopsis*  
abundant along small  
streamlets or tidal channels.

87 *Canavalia* <sup>ensiformis</sup> (L.) DC

88 *Polyscias* <sup>tricoccinea</sup>

ornamental in yard

89 *Polyscias*

ornamental in yard

90 *federia*  
very abundant in marshes  
also invading cult. land.

Udot).

73

sterile vine growing  
on ground and on bases  
of coconut trees.

"ulelepot," not used as  
fish poison.

- tree 6 m. tall, wood used.

- ~~proboscis~~ "pono"  
clump of small culms  
2 m. tall, sheaths from  
4th to 5th nodes, sheaths  
pendent from the middle  
part of attachment.  
Other culms seen from  
same clump, but in use,  
that must have been  
8-10 m. tall, nodes about  
~~2.5~~ 2.5 dm. apart.

Laid to have been brought  
in by Japanese.

shrubs 2-3 m. tall,  
inflorescence pendent,  
~~petals~~ petals  
white or greenish white,  
stamens pink, style  
deep pink. "sol" <sup>surrounds</sup> "sau"  
erect but becoming  
vine-like, pods green.  
Introduced by Japanese.

steil - very erect; leaves  
variegated. shrub 2.5 m. tall.  
dense shrub 1 m. tall. steil.

herb 1-1.5 m. tall, from  
dense root crowns.

1944 - Truk Is. (Carolines)

24499 *Stachytarpheta*  
cultivated in gardens  
as ornamental.

92 *Fantana camara* f. *aculeata*  
cult. in garden as ornamental

93 *Euphorbia heterophylla*  
cult. in garden as ornamental

94 *Hernandia ovigera*  
edge of beach

95 *Perris*  
common everywhere in  
disturbed ground.

May 25 - Udot I., old mission  
garden oak in saddle bet.  
Moniä (Moluä) and Manitu  
villages.  
semi-cultivated ground.

96 *Capsicum frutescens*

97 *Morinda citrifolia* L.

98 *Citrus aurantium*

Udot

shrub 1 m. tall, trimmed  
into a hedge, fls. deep  
blue-violet.

shrub 4.5 m. tall, fls.  
- ~~yellow~~ yellow, turning pink.

shrub 1 m. tall, variegates on  
bracts varying from  
salmon to white. said  
to have been red to start  
but getting gradually  
whiter. Perhaps a diffidery.

tree 1 m. tall, leaves  
leathery, fls. greenish white,  
- fruit fleshy, white. "aguan"  
vines creeping on ground,  
leaves glaucous beneath.  
steile. "up" or "ub" roots  
pounded and used to poison  
fish. used in quantities of  
a large double handful.

Many cultivated species said  
to have been brought from Ponape  
by missionaries.

shrub 1 m. tall; fls.  
- greenish.

bushy 3 m. tall; flowers  
white; fruit eaten when  
ripe and soft. "napu"

trees 7 m. tall, apparently  
free from scrub that attacks  
*C. aurantiifolia* not far away.  
ranges sour.

1946 Truk Is. (Carolines)

24499 *Annona muricata* L.May 25, Udot I., Monia (Moluë)  
village

semi-cultivated land in village

24500 *Citrus aurantiifolia*01 *Pemphis acidula*  
top of beach02 *Xanthosoma* (in 1. Hm) Dug on - in  
on *Citrus aurantiifolia*\* 24500May 27 - Fefan I., saddle  
bet. Mt. Chukuson + Mt.  
Chukuchaps, bet. Mesa  
village and Danuk (above  
Foudjuén village)open grassy slopes with  
*Paspalum conjugatum*, P.  
*obtusifolium*, small ~~for~~ thicket  
of *Premna*, *Glochidion*, *Acalypha*,  
etc., with *Cocos* and *Artocarpus*03 *Hibiscus tiliaceus*  
patches on slopes04 *Acalypha*  
common in thickets

Udot I. - Fefan I.

77

tree 6 m. tall, leaves glossy.

tree 6 m. tall, badly  
infested with scale.  
- shrub ~~2~~ 2 m. tall,  
- flowers white.  
heavy infestation.planted abundantly,  
but numbers of these  
cut by Japanese who planted  
patches of sweet potato  
and manioc. Many of the palms  
had the tops broken off or  
shattered, said to have been  
cut by the Japanese to get the  
cobbidge. *Paspalum* provides  
a good quick cover to cut down  
erosion. It has almost taken  
over the sweet potato patches.  
small tree 5 m. tall;  
leaves dark green  
above, glaucous beneath;  
flowers clear pale yellow  
with maroon center. "mifo"  
shrub 2-3 m. tall  
"manou"

78 1946 Truk Is. (Carolines)

24505 *Premna obtusifolia* (L.) R. Br. (det. L. B. Burtt)  
common in thickets

06 *Eisihia* (det. V. L. Jones & J. D. Jackson) (det. R. E. Johnson)  
~~disease~~ on moist open slopes

07 *Polygala*  
common on open slopes  
along trail

May 27 - Fefan I., Mt.

Chubuchapp  
small patch of native  
forest on steep side of ridge  
crest. *Calophyllum inophyllum*, *Ficus*

08 common

09 *Ficus*  
several trees in small patch

10 *Canavalia cathartica* Thomas  
common vine in forest

11 *Glochidion*  
occasional to common on ridge  
and slopes, coming in after clearing

12 *Maearanga*  
common, coming in after clearing

13 *Derris*  
common

14 *Cynometra*  
one large tree seen

79

Fefan

shrub 3 m. tall.  
— "mior umulau"  
disease on *Pomona*, *batatas*.  
flowers white, roots  
with wintergreen odor.

sp., *Cynometra*  
lived with *canavalia*,  
~~and~~ *Messersia*, & *columella*  
vines.  
vine climbing in trees;  
flowers green "cheechin"  
large tree, sterile.  
"au"

vine tangled in trees.  
— undoubtedly more than  
one plant represented in  
collection. flowers rose-pink  
(only one seen later by a lawn while  
in press) "chochon"

small tree; flowers  
yellow "afoi"

small tree, flowers  
greenish "up"  
vine, climbing in trees,  
leaves glaucous beneath,  
dark green above; sterile,  
"up"

tree 10 m. tall, leaves  
glossy above. (ömmö)

May 27 - Mesa Village, Fefan I.  
marshes back of black,  
slightly higher ground  
back of this, and slopes  
above.

24515 ~~Blechnum~~ *riparium* L.  
cavity in rock of road cut  
16 *Ipomoea batatas* L.  
along road

17 *Cyperus javanicus*  
~~just~~ just above edge of marsh

17 *Phyllanthus amarus* Schum.  
common weed. det. F. L. Wilcox, 1955

19 *Sida rhombifolia* L.  
common weed

20 *Urena lobata* L.

21 *Luffa cylindrica*  
common weed

22 *Colococcus*  
occasional in marshes

"rubung"

(wood specimen)

*meconthus japonicus*  
"arat"

rhizome very short, erect,  
75 m. young fronds rose-bronze.  
vine creeping on ground.  
75 m. flowers lavender, stems  
petioles to maroon.  
small dense tuft. leaves  
slightly glaucous "moiron"  
erect "negamani" "nekamani"

erect, 0.8 m. tall, flowers  
yellow. "siemene"  
flowers pink "noknok" (no good)  
vine, climbing over building,  
bushes, etc. flowers  
yellow. "moreno"  
tree 1-2 m. tall, leaves  
ascending, flower ~~ing~~  
inflorescences ascending,  
trunks bend toward outside,  
firm but pithy within,  
covered with small  
incipient roots about  
1 cm. long, above with  
stubs of old inflorescence,  
leaves with sheath  
closed below (about 3 dm.)  
old infls. with mature  
fruit below leaves  
leaf scars inconspicuous.

May 28 slopes of Mt. Tolosa

cultivated slope.

24523 *Alocasia macrorhiza*  
 small patch, cultivated  
 on slightly moist ground,  
 but not in water.

upper steep wooded ridges  
 and slopes, decadent mist  
 forest, with some large  
 trees.

24 *Acalypha*  
 thickets near lower edge  
 of forest

25 *Hoya*  
 near top of mountain on open  
 ridge.

26 near top of mt. on open ridge.  
*Procris pedunculata*  
 common near top of mountain

erect stem 5 dm. tall,  
 leaves up to 2 m., peduncle  
 axillary, up to a dozen in  
 various stages on one  
 plant, each enclosed in  
 2 linear bracts. spathe  
 bronze purple with green  
 base, ~~stamin~~ ~~part~~  
 upper part of spadix yellow,  
 middle part white  
 tessellate, lower part  
 with greenish ovaries  
 and white stigmas. "ka"

bush 1.5 m. tall (possibly  
 extreme form of # 24524),  
 leaves fleshy  
 vines tangled with other  
 vines. flowers white  
 - corona ~~yellow~~ ~~pink~~  
 vine with yellow flowers.

~~common~~ fleshy herb  
 "ataagui" (h)

24528 *Centotheca latifolia* <sup>Lappacea (L.) Desv.</sup>  
common

29 *Glochidion*  
common

30 *Glochidion*  
common

31 *Pothos*  
common near top of mt

32  *Davallia*  
shaded slope near top of  
mountain

33 *Pittosporum*  
rare, near top of mt.

34 *Abus precatorius*  
ridge slope

35 *Croton*  
occasional near top of mt.

36 *Melochia*  
occasional in open places

37 *Macaranga*  
occasional in forest, especially  
in openings

38 *Flagellaria indica*  
occasional in brush  
or bushy woods on or near  
ridge tops.

39 *Caldwellia involucrata*  
common in forest

40 *Randia carolinensis*  
common in forest

"fetin" applied to grass in general)

small tree, flowers yellow,  
seeds red. (fls. & fruits from  
different trees)

"amase's"  
great vine climbing  
in trees, fruit green, "iga"  
rhizome creeping among  
wedges. "veratu"

small tree, inner bark  
with strong oily odor,  
flowers white "anput"  
vine, flowers purple,  
seeds red with black  
eye. "kasis"

bush 1.5 m. tall,  
flowers white, fragrant.  
"chium"

shrub 4 m. tall, fls. pink  
"cup" (name also applied to  
Macaranga.)

shrub 4 m. tall, fls.  
greenish. "cup" (name  
also applied to # 24536)

vine climbing in trees,  
fruit pink, thinly fleshy.  
"migasi"  
(A)

large tree. "regis"  
small tree, 5 m. tall.  
~~regis~~ "risinom"

24541 *Polyscias sandwicensis* Coll.  
semi open ridge

42 *Glochidion*

common in forest

43 *Canavalia micropurpa cathartica*  
very common, especially in  
openings and around edges of forest

44 *Fagraea berteroana* (Poggenb.) Benth.  
occasional in forest

45 *Clerodendron*

shrub 1.5 m. tall near lower  
edge of forest

46 *Ficus tinctoria*

— not common

47 *Vittaria*  
on tree trunk, near lower edge of  
forest.

48 " on tree trunk "

49 *Polypodium scolopendrium*

on tree trunk near lower edge of forest

50 *Peperomia*

on rocks

51 *Ficus prolixa*

ridge, open edge of forest

bush 1 m. tall, leaves  
very glossy, odor slightly  
oily.

small tree, flowers yellow  
"amasé"

large vine, climbing over  
trees, flowers magenta.

tree 10 m. tall, buds  
and immature fruits,  
fruits pendent "sour"

shrub 1.5 m. tall, buds  
white (flowering and fruiting  
twigs from different  
individuals in same thicket)  
"etin" and "abuets" - two names  
from same ~~the~~ informant -  
mentions the fact that there  
were two.

small tree, sterile  
"awan" (awan)  
ponds leathers, arching.

"unen katu"

small form "chiji" (chichi)  
plant fleshy, flvs. alt.

small tree 9 m. tall, sterile  
"an"

1944 - 7 nbs 1a (Caroline)

24552 *Randia carolinensis*  
common, this on next lower  
edge of forest.

53 *Adesmia*  
rare, lower edge of forest

54 *Piper*  
common

55 *Lugensia ciceraria*  
steep open slope below edge of  
forest

56 *Ficus*  
common in forest, this one at  
lower edge

small tree, flower white  
"hisinom"

shrub 2.5 m. tall, fls.  
- greenish, fruit green.  
- vine climbing on tree trunks  
"eras"  
extensive vine with white  
flowers. Introduced by  
- Japanese. herbage folioid.  
large banyan tree, 10  
m. tall, spreading, mass  
of trunks 2-3 m. through  
quite solid by anastomosis.  
"au"



May 29 - Nomwin I. wood.  
Luxuriant forest of cocoz,  
Artocarpus and other trees  
with dense undergrowth  
of Polypodium, Nephrolepis,  
Wedelia and a number of  
Crataeva species.

24557

58 *Cordia subcordata*  
near beach

59 *Guettarda speciosa*  
occasional, especially near beach

60 *Cassytha filiformis*  
near beach, parasitic on various  
plants

61 *Terminalia catappa*  
near beach

62 *Cucurbita pepo*  
~~central~~ clearing

63 *Fimbristylis cymosa* var.  
opening ~~near beach~~, common

64 *Digitaria* <sup>various</sup> ~~placida~~, <sup>indicates ripening stage</sup> ~~near beach~~  
opening, common

65 *Thurarea involuta*  
opening, common

66 *Pipturus* <sup>argentatum</sup> ~~argenteum~~  
occasional toward outer beach

shrubs, laced with Piper  
and, especially around  
edges, with Canavalia.  
"informant" Af Seai" (Af Kas)

shrub, flowers white  
zygomorphic, petals on  
one side larger. fruit  
eaten when ripe. "apu" "apu"  
shrub 3 m. tall (others  
seen larger), flowers  
bright orange. "anno"  
wood used for outrigger bows.

shrub 3 m. tall (others  
seen larger tree) "mosor"  
wood used to carve bowls

leafless vine greenish-yellow,  
flowers white, fruit green.  
"ölan" used to line an oven or "um"  
bushy tree, 3 m. tall. "sin"  
wood used for paddles

extensive creeping vine,  
leaves gray, spotted, flowers  
yellow. "pakin"

tufts, leaves soft. "puker"  
used as stomach medicine  
tangled

prostrate ~~tree~~ with tips  
ascending, forming a loose  
mat.

shrub 2-3 m. tall, leaves  
whitish beneath. "awna" used for  
fish lines (inner bark)

94 1946 - Hall Is. (Caroline)

7567 *Pipturus argenteus*  
occasional toward outer beach

68 *Messerschmidia argentea* (L.) Johnst.  
along outer beach

69 *Triumfetta procumbens* Tast.  
along passage beach

70 *Ficus tinctoria*  
occasional in forest

71 *Eugenia jambua?*  
occasional in forest

72 *Polyphorus* <sup>l</sup>*randii* <sup>l</sup>*angulata* Bals.  
on decaying log in forest.

73 *Leucobögum* <sup>l</sup>*glaucum*  
<sup>l</sup>*coconut*  
on tree trunk near beach

74 *Hedysotis biflora*  
on ground in forest in a spot  
free of undergrowth

75 *Achyranthes indica aspera*  
scattered especially along  
trails and in openings

Nomwin Atoll

95  
"aroma"  
shrub 3 m. tall, "oppolpet"  
leaves white beneath "amoleset"

wood used brush 3 m. tall, other  
for canoe seen 6 m. fls. white, leaves  
fleshy, silvery green, "amoleset" "amoleset"  
"amoleset" "amoleset" from wood.  
stems prostrate with  
branches ascending, fls.  
yellow. "kunin"

— small tree, 5 m. tall; <sup>big</sup>  
ripe fruit orange, <sup>very</sup> <sup>aroma</sup> eaten.  
rarely fruiting. <sup>asian</sup>  
great tree 20 m. tall, 8 dm.  
thick; more or less cauliflory,  
infls. both on trunk, limbs  
and smaller branches, fls.  
white. "faniaps" fruit eaten raw.  
wood used for outrigger boom.  
"selingen ann" (Devil's ear)

pale green cushion  
"lumun mi" (coconut moss)

prostrate; leaves sub-fleshy,  
white beneath; fls. white  
"opuson"

erect herb. "likö" may be pronounced  
"legö".

24596 *Callicarpa cardiocarpa* (Burm. f.) Hochst.  
rare, one seen in open woods  
"apui" used for bow and arrow.

77 *Tacca leontopodioides*  
common especially in open places  
found on all small islands.

78 *Morinda citrifolia* L.  
common

79 *Guettarda speciosa*  
occasional in forest

80 *Piper fragile*  
very abundant

81 *Wedelia biflora*  
abundant, one of principal  
plants in undergrowth

82 *Glochidion* sp.  
common in undergrowth

83 *Polypodium scolopendria*  
common, forming a large  
part of undergrowth  
on ground and climbing tree trunks.

84 *Nephrolepis hirsutula*?  
most abundant plant  
in undergrowth.

shrub 8 in. long, fls. purple

→  
scape erect, leaves  
with 3 main divisions  
"moh(u)moh" starch made from tuber  
usually wild but sometimes planted.  
shrub 2-3 m. tall,  
fl. & fruit white. "nen"  
(in Truk "aring" or "nobui").  
fruit eaten in time of famine.  
suckers shoot from tree  
20 m. tall, 5 dm. thick.

vine on ground and  
climbing on tree trunks,  
sterile. leaves glossy.  
"atukupui"  
erect, 1-2 m. tall, fls.  
yellow. "atuat"

shrub, -3 m. tall, fls.  
yellow, fruit green.  
"efor" used for humpnafers.  
"chili(chi)

fronds more or less  
crenate, spreading cystostoma  
"amere"

24585 *Scaevola* <sup>germ</sup> <sub>footers</sub>  
fringing the beaches, not  
in forest

86 *Canavalia* <sup>cathartica</sup> <sub>Thunb</sub>  
very common, especially near  
beaches, ~~climbing~~

87 *Plumeria* <sup>subra</sup> L.  
cultivated ornamental

88 *Hernandia* <sup>virginiana</sup> <sub>var</sub>  
cultivated ornamental

89 *Dioscorea* <sup>bulbifera</sup> L.  
occasional in forest

90 *Alocasia* <sup>macrophylla</sup>  
very common both in  
swampy land and about  
houses in the village,  
actually becoming weedy

91 *Artocarpus* <sup>altilis</sup>  
forming a dense forest  
~~in center of~~ in center of  
island back of village  
elsewhere mixed with cocos.

92 *Annona*  
on rotting breadfruit log

93 *Glechoma* <sup>indica</sup> (L.) Gaertn.  
one plant only seen on pier

94 *Fimbristylis* <sup>cyathiformis</sup> R. Br. var.  
rare on sand spit (with 24587)

shrub 1.5 m. tall,  
rounded, spreading,  
fls. white, fruit white,  
fleshy. "nat"  
vine, climbing over trees,  
fls. rose pink. nodes on  
dead vines. "nat" leaves used  
for medicine for stomach. less  
from flowers.

small tree "soin".  
latex abundant, fls yellow  
and cream.  
shrub 3 m. tall, leaves  
glossy.  
vine, sterile.

plants all sizes, up  
to 1.5 m. or more in. tall,  
cauliflous. "ka"

great trees up to 25 m. tall  
fruit rather small  
and cylindric.

gelatinous, tough.

tufts; leaves stiff

24595 *Euphorbia chamaissoides* Baill.  
common very locally on  
sand spit.

96 *Portulaca oleracea* v. *Poelln.*  
only one small plant seen  
on sand spit.

97 *Fimbristylis cymosa* R.Br var.  
common on sand spit.  
(with #24594).

98 *Thalassia hemprichii*  
abundant in shallow water  
of lagoon near shore

99 *Chloroxis excentrica*  
cultivated in trenches dug  
down to water level in  
forest.

24600 *Cyrtosperma chamaissoides* Schott. <sup>merkissi (Hassk.)</sup> D. M. D. 6/1946  
cultivated in trenches and  
marshy places dug down to  
water level.

01 *Pandanus tectorius*  
common on ~~west~~ and outer  
beach

02 *Musa sapientum*  
planted in trenches in forest,  
with arids, not abundant.

03 *Soulamea amara* Lam.  
common locally on broken  
coral near outer beach

plant spreading-ascending,  
deciduous, sub-fleshy,  
leafs white beneath,  
fls. greenish, slightly sticky.  
"not":

plant prostrate, leaves  
fleshy, flower yellow, 1.5 cm.  
across.

tufts, leaves stiff.

rhizome and leaf bases white.

sterile; petioles green, other  
parts seen with reddish  
petioles.

plants up to 2 m. tall,  
prickliness variable  
(leave from different plants).

pyramidal tree 6 m. tall  
fruits from ground beneath.  
(a much longer leafed form,  
planted in interior, used  
for weaving mats).

plant about 2 m. tall,  
young

shrub 2-3 m. tall

24604 *Crataeva* species

common, especially in village

05 *Terminalia catappa* *savannae* Reh.  
rare, near outer beach06 *Calophyllum inophyllum*  
occasional, this one near  
inner beach.07 *Digitaria purpurea* var. *microstachys* apparently var. *purpurea*  
common near inner beach08 *Lepturus repens* var. *subulata*  
common to occasional near  
inner beach

Island flat, no trace of raised coral. mostly sandy except on outer beach and a narrow strip in front of it, which are of broken coral. The central part of the island is occupied by a dense forest of great breadfruit trees, up to 20 or 25 m. tall. Where this breadfruit is thickest, the under-growth is rather sparse, but toward periphery the breadfruit becomes mixed with coconut and not so dense. Here the under-growth of *Neurolepis*, *Polypodium*, *Wedelia*, *Piper* becomes very dense and 1-1.5 m. deep, with common shrubs of *Glochidion*, *Festuca*, *Ficus tinctoria*, *Morinda citrifolia*, *Eugenia*, etc. Toward the outer beach *Pandanus*, *Cordia*,

nombrin).

fl. white.

- small tree 4 m. tall,  
- flowers white.- small, sterile tree 5 m.  
tall.

creeping

*Pipturus*, *Messerschmidia*, *Terminalia* and 24603 become common. *Scaevola* forms a dense fringe around the outer and passage beaches, growing to a height of 3 or 4 meters.

In small openings and clearings *Fimbristylis*, *Digitaria*, *Thunarea*, and *Lepturus* cover the ground. In open places very near the beach *Triumfetta* is common, *Fimbristylis* is more common than inland, and *Cassytha* is common, strangling everything from grasses to small trees.

On a sand spit running out along the reef *Scaevola* and *Messerschmidia* are the dominant plants, forming an open bush, while two

Especially near the beach *Scaevola* is abundant and rampant.

forms of *Fimbristylis cymosa*, *Euphorbia* sp. are common in the intervals. Here a single plant of *Portulaca quadrifida* and a small sterile seedling of *Sporonea per-capitae* were seen.

*Tacca*, *Dioscorea*, and one or two sterile *Sporoneas* are scattered over the island. The *Tacca* is used to make starch and, though usually growing wild, is occasionally deliberately planted. It was not seen on the beach.

Around the village and scattered houses the most conspicuous plant besides *Coco*, is *Crataeva*, which is planted everywhere to furnish fruits for food. Hedges are made up of a *Hibiscus rosa-sinensis* or a hybrid), and a sterile *Polygria* with finely cut leaves. *Plumeria* is occasional, as is a large *Crinum* (both a white and a red form growing together). *Alocasia macrorhiza* is common everywhere about the village, even becoming weedy and growing in much reduced form along paths. *Pandanus* is occasional, but was all sterile.

Toward the interior a series of excavations have been made and filled with organic matter, forming a peaty mulch. Here *Cyrtosperma*, <sup>and at least some of</sup> *Colocasia*, are grown, with *Alocasia* and *Musa* on the slightly higher but wet ground around them.

The *Artocarpus* is quite variable in leaf outline and fruit shape, size, and surface. Pelszer and Elbert got names of a dozen or more varieties. I had no time to make any attempt to study them.

The *Pandanus* observed growing commonly ~~along~~ the outer beach (#2406) is a short leaved small fruited form. Inland a *Pandanus* is commonly planted, apparently for mat-weaving, which, perhaps because of habitat, is much more luxuriant and longer leaved. It was all single ced stems about 1-1.5 m. tall.

*Cucurbita pepo* was occasionally cultivated but did not appear to fruit much.

Obviously *Cocos nucifera* and ~~Artocarpus~~ *Artocarpus altilis* are the important food plants.

*Alocasia* and *Cyrtosperma* and

*Tour* are also important. *Crataeva*, *Lau*, *Pandanus*, *Eugenia*, *Ficus*, and *Morinda* furnish fruits that are eaten. *Alocasia* is a food plant, but was not seen in any great abundance. *Cucurbita* is not abundant.

Judging by the size of the *Musa* plants, they have not been cultivated for any length of time yet and must be in a more or less experimental stage. It was not discovered whether or not the *Diocorea* is eaten. *Sporo* *batatas* ~~is~~ very sparingly planted but obviously does not thrive.

The wood of *Glochidion* is used for house rafters, that of *artocarpus* for general construction and apparently canoe hulls, that of *Eugenia*, <sup>and *Canella*</sup> for outrigger bows, that of *Messerschmidia* for carved bowls, diving goggles and canoe connectives, that of *Terminalia catappa* for paddles, and that of *guettarda* for carved bowls.

The inner bark of *Pipturus* is used for fish-lines.

*Pandanus* leaves are used for weaving mats.

Coconut leaves are used for house coverings, rough baskets, young leaves for fans and hats, etc.

*Canavalia* and *Timbostylis* are said to be used as medicines for stomach ailments.

*Cassytha filiformis* is said to be used to line ovens.

Leis are made from *canavalia* flowers and *Plumeria* flowers are worn in the ear by young people to indicate that they are thinking of the opposite sex.

The Truk Archipelago is extremely varied in topography, soil and underlying rocks. It is an enormous barrier reef with a number of motu. Inside are numerous islands of all sizes, from high mountains rugged ones to small flat coral islands.

On the volcanic islands parts are underlain by deeply weathered tuff, part by hard flow lava. Some have the lower terraces of coral rubble. Great talus slopes have accumulated at the foot of the basaltic cliffs on such islands as ~~the tuff, especially~~ Tol and Dublon. This has become weathered in most places.

The tuff, especially, has weathered into a dark red-brown sticky soil with a high colloidal content, as evidenced by cracking when it dries out.

The high islands were obviously once forested. Now only remnants of this forest persist on the highest peaks and high, steep slopes on a few of the larger islands, as Tol (west), Dublon, Fapan, Moen. Important trees in this are *Cynometra*, *Ficus* (*tristis* and sp. #24556), *Calophyllum inophyllum*, *Randia carolinensis*, #24463, a ptychospermate palm, *Glochidion*, *Macaranga*, *Fagraea*, several *Araliaceae*, and several others. Trees, shrubs, as *Psychotria* (24456, 24457), *Acalypha*, *Pipturus* (24464, 24467), *Clerodendron* (24545), *Allophylus* (24553), are reasonably common. *Croton* (24535), *Pittosporum*, *Psychotria* (24460), etc. are rare. On the ground, at least along trails,

*Geozardia herbacea* and *Cestrum latifolia* are common, the latter making up much of the ground cover, along with several ferns.

*Piper* (?) sp., *Columella* (?) sp., *Ipomoea* sp. (24418), *Merremia*, and, in places, *Canavalia* are common vines, but, perhaps with the exception of the Pipers and Columella may be invaders from below where the forest has been damaged. *Pothos* (?) (24531) is occasional as a vine climbing in trees. ~~This forest was not seen~~

This forest was not seen anywhere below about 200 m. and varied in composition, but not much in aspect, from place to place. The higher portions are true montane rain-forest, with leaf epiphytes abundant. Trunk epiphytes, mostly *Polyodium*, *Vittaria*, etc. are common throughout.

Something similar to this may well have been the natural vegetation from the foot of the slopes up to 700 m., as in places higher where the forest was destroyed or damaged, the plants that tend to come back are those commonly found on the lower slopes. Here the natural forest has been

completely destroyed, probably for a long time, and replaced by a forest-like cover of *Cocos* and *Artocarpus*, with various subsidiary shrubs and small trees and a ground cover of grasses and ferns. *Oplismenus*, *Cestrum*, *Rephrolepis*, etc. are common in this.

Many weeds are abundant. These have been much encouraged by the cutting of considerable areas of the breadfruit and coconut during the war by the Japanese. *Paspalum didactylon* ~~conjugatum~~ <sup>scrubily</sup>, *oblongum*, *Emilia sonchifolia*, *Sida acuta*, *Ageratum conyzoides*, and many other weeds are common. *Ipomoea* sp. (24418), *Merremia*, *Canavalia*, etc. cover large areas. In some open places small tracts of *Miscanthus japonicus* are found, but not as abundant as might be expected.

The aggressive secondary shrubs or small trees that tend to come in here are *Glochidion*, *Acalypha*, *Macaranga*, & *Sterculiaceae*, *Morinda citrifolia*, etc.

In the openings cleared

by the Japanese every available square foot was planted to sweet potatoes and manioc. The natives are neglecting these, especially the sweet potato, now and grass is taking possession, growing very luxuriantly.

*Mangifera indica* is scattered here and there, as are thickets of *Hibiscus tiliaceus*.

Shrubs and vines follow and already the Japanese trails are so overgrown that they cannot be used. Erosion does not long remain a serious problem, as the growth is very heavy.

The terrace at the foot of the slope is usually little above sea level. In most places it is fringed with typical mangrove swamp, with 2 sp. of *Bruguiera*,

*Rhizophora mucronata*, *Lumnaria casuarina*, ~~Excoecaria~~ *agallocha*, and two other trees very common. *Rhizophora* usually dominant, *Acrostichum aureum* common, also *Clerodendron* sp.

Back of this is land that is occupied by houses, door-gate cultivation such as *Citrus*

*aurantiifolia*, bread-fruit, coconut, *Alocasia*, etc. *Carica*, manioc

great  
Phragmites  
grasses

Here also are fresh or brackish marshes with great masses of *Scleria*, etc.; and where *Colorasia* and *Cyrtosperma* are cultivated. *Ipomoea reptans* is common here, said to have been introduced by the Japanese. It is eaten as greens. A large grass occupies great areas of marsh on Molo. In more brackish areas *Paspalum vaginatum* forms pure stands. <sup>lvs. green</sup> common

Along tidal channels into these marshes are thickets of *Barringtonia racemosa* and *Nipa fruticans*.

Spontaneous trees and shrubs are *Mangifera*, *Morinda*, *Hernandia*, *Hibiscus tiliaceus*, *Thespesia*, *Pandanus*, etc. *Ciba* and *Cissus* appear to be planted.

Some of the common tropical cultivated plants are raised in door-yards as ornamentals - *Hibiscus rosa-sinensis*, *Allamanda*, *Lantana*, *Polyscias* (2 sp.), *Euphorbia heterophylla*.

Weeds are the most obvious part of the vegetation - *the Cleome indica*, *Jussiaea suffruticosa*, *Urena lobata*, *Lida acuta*, *Luffa cylindrica*, *Ceratium echinatum*

*Vigna marina* in places covers large areas. Just below headquarters it has spread up the lowermost slopes and is covering some of the bare scars of bulldozer activity, preventing erosion.

Missing

carolines)

1d main  
ridge, Moen.  
(9 Mt.)

24609 - 24669

Trub  
Moen  
Ris

fruit and  
of it cleared  
sweet potato  
or overgrown  
clim. con-  
crobiculatum<sup>12</sup>  
) Scleria sp.  
porious  
vines of

211694, 91

fungi?

7500<sup>4</sup>

ense (Kaneh.) M. Keff.  
woods on ridge

10 Randia carolinensis  
common in woods on high ridge

11 # Ficus  
common in woods on high ridge,  
this specimen, at least, a  
strangler, growing around a  
Scheflera

12 Scheflera braueri Harms  
occasional in woods on high ridge

13 Digitaria  
abundant on upper open slopes

main ridge with  
patches of original  
forest alternating with  
cleared places, these  
on more or less level  
places. Forest of Ficus,  
Cynometra, Schefflera, etc.,  
quite wet, trees large

Tree 8 m. tall, 2.5 dm. thick,  
wood rather hard, fruit  
pale green, skeletons of  
old tree percutting or whole tree  
shrub 3 m. tall, flower  
white, odorless, fruit not  
mature.

large tree, with a mass of  
trunks; fruit pinkish.

fairly large tree, being  
strangled by Ficus, about  
8-10 spines at summit  
of branch, flowers  
white, fruit green.  
tangled culms forming a  
heavy ground cover.

June 2 - slopes and main ridge of Mt. Terokeen, Moen.  
(Chukumung Mt.)

slopes with breadfruit and coconut, much of it cleared and planted to sweet potato now very much overgrown by grasses - *Paspalum conjugatum* and *P. scrobiculatum*<sup>(1)</sup> *Digitaria* sp. ( ), *Scleria* sp., *Miscanthus japonicus* forming thickets, vines of *Thespesia*, etc.

77609 *Astronium carolinense* (Karb.) Muell. occasional in woods on ridge

10 *Randia carolinensis*  
common in woods on high ridge

11 ~~7~~ *Ficus*  
common in woods on high ridge,  
this specimen, at least, a  
strangler, growing around a  
*Schefflera*

12 *Schefflera laurina* Harms  
occasional in woods on high ridge

13 *Digitaria*  
abundant on upper open slopes

main ridge with patches of original forest alternating with cleared places, these on more or less level places. Forest of *Ficus*, *Cynometra*, *Schefflera*, etc., quite wet, trees large.

Tree 3 m. tall, 2.5 dm. thick, wood rather hard, fruit pale green, skeletons of old ones persisting on old tree, shrub 3 m. tall; flower white, odorless, fruit not mature.

large tree, with a mass of trunks; fruit pinkish.

fairly large tree, being strangled by *Ficus*, about 3-10 spires at summit of branch, flowers white, fruit green, tangled culms forming a heavy ground cover.

2 June 3 - Pis I., north side of  
Truk Caiviss Reef. -  
flat coral island with a little  
slightly raised coral at west end,  
completely wooded, mostly  
with Cocos and Artocarpus.  
rocky toward outer beach,  
sandy over most of island,  
large depressions filled with  
muck in interior where  
Cyrtosperma is raised extensively  
general undergrowth of  
ferns and Medelia, grass  
in openings.

24614 *Ximenesia americana* L.  
rare, at top of outer beach

15 ~~Catappa glabra~~ *Terminalia*  
occasional around beaches

16 ~~Catophyllum~~ *Paragis* *Artocarpus odoratus* | Raff. Muir.  
rare, no plant seen

17 *Scenopla frutescens* (Mill.) Kr.  
common, fringing outer  
and passage beaches

18 *Fimbristylis*  
occasional, common on outer beach

19 *Triundia procumbens*  
occasional on beaches,  
shaded.

20 *Cordia subcordata* Lam  
along beaches, especially inner,  
near houses.

*Cucumis pepo* = "pabu"  
*Carica papaya* = "kipau"

bush, 1.5 m. tall, rounded,  
weakly spiny, leaves  
thick, yellow-green;  
flowers yellow within,  
green without. "anno" or "ano"  
- shrub 2 m. tall, leaves  
leathery, flowers white  
"sin"

shrub 1.5 m. tall, sterile.  
"atbat" "manin"  
rounded shrub 3 m. tall,  
flowers white. "not"

caespitose tufts, leaves  
not especially stiff. "poker"  
stems prostrate, branches  
erect; fls. yellow. "kinin"

tree 6 m. tall, rounded; flowers  
orange, fragrant. "anibat"

24621 *Cassytha filiformis* L.  
common on outer beach,  
parasitic on various low plants.  
"n *Crinum*  
commonly cultivated

22 *Glochidion*  
occasional in undergrowth

24 *Ixora malayana* <sup>case Hanu</sup>  
rare, cultivated as ornamental

25 *Rhoeo discolor*  
persisting after cultivation

"  
" *Eragrostis amabilis*  
weedy sandy places near  
inner beach.

27 *Eleusine indica* (L.) Gaertn.  
weedy sandy places near  
inner beach.

28 *Digitaria pumila* var. *minibulus*  
common in open sandy  
places, especially near  
inner beach.

29 *Portulaca quadrifida*  
common in weedy places  
outside of forest, along road

30 ~~30~~ *Soulamea amara* Lam.  
common along outer beach on  
rocks

leafless, stems yellow-green, flowers white,  
fruit green. "ik" plant, m. tall, fls. white  
(red flowered form also grows  
with it). filaments purple,  
peduncles slightly compressed  
"isip"  
shrub 1.5 m. tall,  
fl. yellow. "ipoi" "ipoi"  
shrub 2.5 m. tall, infl.  
dull red, flowers scarlet.  
"atim"  
under sides of leaves  
and tracts maroon-purple.  
said to have been introduced  
by Japanese. leaves fleshy, brittle,  
spreading tufts.

tufts.

covering ground.

prostrate, flowers yellow.  
root enlarged, plant  
fleshy, leaves in flat  
masses. "chinkis"  
shrubs 2 m. tall, flowers  
whitish, fruit green.  
"marai"

24631 *Plumeria rubra* L.  
cultivated sparingly

32 large beds in shallow  
water on fringing reef  
in lagoon, almost  
exposed at low tide.

33 *Polyscias quadrifolia* Willd.  
shade, especially in  
edge of forest.

34 *Ipomoea alba* L.  
edge of forest near outer beach

35 *Oplismenus compositus*  
common in forest, carpeting  
ground

36 *Ipomoea littoralis* Bl.  
occasional in woods

37 *Dioscorea bulbifera*  
common in woods

38 *Achyranthes aspera*  
rare in woods along trail

39 *Hymenocallis littoralis*  
rare in small clearing

40 *Paspalum conjugatum*  
common along trails and  
in slight openings in woods

small tree 4 m. tall, very  
lactiferous; flowers  
fragrant, cream and yellow.  
"seui"

succulent, rhizome  
white, leaves  
distichous:  
"muhanneti" or "anot"  
✓ with celery odor when broken  
shrubs less than 2 m.  
tall, fruiting when  
less than 1 m., inflorescence  
very lax. "atenichen"  
vine, climbing over shrubs  
"ipanach"

prostrate to ascending,  
loose

sterile vine "meli" or "muge"

vine climbing on shrubs  
and trees, sterile, tubers  
eaten by natives. "apueka"

erect herb 1 m. tall.  
"niköki"

flowers white, peduncle  
compressed, with sharp  
edges. "sip"  
spreading by runners,  
forming a dense growth.

24641 *Wedelia biflora*  
one of dominants in undergrowth

42 *Artocarpus altilis*  
about dwellings

43 *Bruguiera*  
in marshes on the landward  
side of the road on to passage  
beach.

44 *Asplenium nidus*  
on coconut stumps, rare

45 *Premna obtusifolia* (L.) Benth. (White 1946)  
edge of forest, near dwelling

46 *Clerodendron*  
small marshy places

47 *Flacouria*  
on coral boulders and along  
road

48 *Quettarda speciosa*  
occasional along beaches

49 *Dryopteris goldieana*  
is seen & only in much  
soil in crypto-hemig. patch

50 *Nicotiana tabacum*  
cultivated around dwellings,  
a few plants at a time

51 *Rhizophorus sanguineus* L. w. P.  
on old rotting post P

52 *Schizophyllum commune* Fr.  
on old rotting post

erect herb 1 m. tall,  
flowers yellow "atut"  
tree 10 m. tall, fruit  
immature, seed bearing.  
variety "mai" or "mei"  
small tree 3-4 m. tall  
calyx green, petals dull  
orange.

small plants, not  
especially thriving "nati"  
shrub 4 m. tall "umukau"  
scrambling shrub,  
forming low thicket,  
corolla white, stamens purple.  
"apuehi"

stems red, fleshy, petioles  
and cyathia red. "anifitui"

shrub 2 m. tall "mosoi"  
all plants examined were  
sterile. "amare"

herb 1 m. tall, flowers  
pink "suba"

color orange-red, deeper below.  
"seringen ane"

color dull white

24653 *Crataeva speciosa* Volk.  
"sparsely cultivated"

54 *Pittosporum*  
"sparsely cultivated around houses, said to have come from Pis I., not from higher islands."

55 *Messerschmidia argentea*  
common along outer and passage beaches

56 *Hernandia petiolaris* Oviedo  
one plant seen along ~~passage~~ west beach

57 *Vigna marina*  
common near beaches

"

58 *Hedysotis biflora*  
common in disturbed places

59 *Lepturus repens* (Forst.)  
occasional near outer and passage beaches

60 *Denns trifoliata*  
common in edge of forest and around rounded coral boulders near ~~passage~~ west beach

61 *Ficus tinctoria*  
occasional in forest

62 *Callicarpa*  
rare in edge of forest at west end

shrub 2-3 m. tall, sterile.  
"apuchi"

small shrub 1.5 m. tall.  
inner bark with an oily aromatic odor, said to be used to rub on hair. "avenger"

small tree, leaves fleshy, silvery green, flowers white, somewhat fragrant. "chen"

small sterile bush 2 m. tall, leaves somewhat fleshy. "akurang"

prostrate, carpeting ground, peduncles erect, flowers yellow, keel straight. "montra"

prostrate; leaves sub-fleshy, pale beneath; flowers white, tube swollen, lobes divergent. "sing"

spreading by runners

leathery leaved vine, leaves glossy, dark green, unifoliate and trifoliate on same plant.  
"unepot"

shrub 2 m. tall, sterile

"aman"

shrub 2 m. tall "roti"

724663 *Morinda citrifolia*  
common

69 *Pisonia grandis*  
rare on west end

65 *Canavalia microcarpa*<sup>cathartica Thunb.</sup>  
occasional on west end  
and in edges of forest

66 *Pemphis acidula*  
common on eroded coral  
blocks at west end

67 *Terminalia catappa* L.  
one seen, near habitation

68 *Vernonia cinerea*  
occasional in disturbed places

69 *Euphorbia prostrata*  
common around village

70 *Physalis*  
rare in disturbed ground

71 *Euphorbia hirta*  
occasional in sandy places  
among dwellings

72 *Phyllanthus* <sup>amarus Schum. & Th.</sup> <sub>1955</sub> <sup>det. O. L. Wilcox</sup>  
~~numerous~~ t.  
common in weedy places

73 *Gomphrena globosa*  
cultivated (rare)

74 *Mirabilis jalappa* L.  
cultivated (rare)

75 *Cyperus javanicus*  
occasional

76 *Stachytapheta*  
rare in weedy places

shrub 2 m. tall  
"nobur"

seedling, no large  
plants seen. "nob"

large vines, flowers  
rose pink "onka" "onka"

small trees, flowers  
white (mostly fruiting)  
young leaves thin and green, older ones fleshy, salty-astringent. "eng"

shrub 3 m. tall, flowers  
white "asai"

flowers purplish.

prostrate, stems red.  
"kicich"

flowers pale yellow  
with maroon center "tando"

plant purplish

erect (others seen much  
taller)  
heads magenta

bushy herb 4 dm. tall  
"meribis"

caespitose, roots  
exceedingly long (other  
plants seen smaller)  
"nikanon"

herb 0.7 m. tall, flowers  
deep purple-blue  
"sagana"

24677 *Psilotum nudum*  
rare at bases of coconut trees  
in edge of forest

78 *Nephrolepis*  
"abundant in undergrowth"

79 common in undergrowth

80 *Acalypha*  
common in undergrowth  
too especially toward  
inner beach "

81 *Manisius granulatus*  
common near inner beach

82 *Thespesia involucrata*  
common in open or semi  
open places

83 *Calophyllum inophyllum*  
occasional along beaches

84 *Ihesperis populnea*  
rare along beach

85 *Centella asiatica*  
common along inner beach  
in village

86 *Polypodium scitopendrium*  
common everywhere in  
undergrowth and climbing  
on tree trunks and stumps

87 *Cordyline terminalis*  
side a road village

## caespitose

spreading by slender stolons,  
branches erect "amare"

main stems decumbent,  
branches erect, flowers  
small, white, hidden  
by bracts, "erion"

shrub 5-18 m. tall,  
mostly single stems  
rarely or sparsely  
branched, ~~big~~ stolons  
red. Specimen from  
a number of plants

prostrate "mano"  
~~fetia~~ ~~sciaji~~ "fetia niap"  
prostrate forming  
mats "fetia"

small tree 7-21 m. tall  
"rekit"

small tree, stems  
"piono"

prostrate "mekotok"

"chichi"

shrub 2 m. tall "tin"

74631 *Piper* (L.) Benth. <sup>Mr. Judd</sup> 1955  
everywhere in forest  
89 *Gerringtonia assimilis*  
rare around village  
90 on rotting log

June 4 - Moen I., saddle bet.  
Mt. Teroker and Mt. Tonaachan

91 on rotting stump partly covered  
with earth.

The coral island flora, as exemplified by Pis I. is rich, compared with many such islands. The rainfall is so high that a tall forest of *Cocos* and *Artocarpus* is supported, with deep undergrowth of *Wedelia*, *Acalypha*, *Nephrolepis*, *Polypropodium*, *Polygonias*, and with deep grass - *Paspalum conjugatum*, *Digitaria*, <sup>optimum</sup>, etc. in disturbed places. In the undergrowth shrubs of *Ficus tinctoria*, *Glochidion*, *Morinda*, etc. are occasional. Extensive low areas, even several acres, possibly artificial, are filled with deep soft mud. Here *Cyrtosperma* is abundant.

On raised limestone, of which there is little on Pis, *Pemphis acidula* grows to small

*Pis* is  
common  
on tree  
trunks.

vine covering tree-trunks  
and on ground "tree"  
stems small tree  
"kun"  
"seingen anu"

glows in darkness with a  
strong green light.

tree size. *Scorodocarpus*, *Lepturus*, *Messerschmidia*, etc. are only found on the extreme edges, at the tops of the beach, especially on the outer beach, which has a strip of ~~tree~~ *Messerschmidia*, *Pandanus*, *Loularea*, etc. fringed with *Scorodocarpus*. *Ipomoea alba* is ~~such as~~ *Piper* sp. ~~lanceolata~~, ~~it~~ found sparingly here, also *Canavalia*. *Vigna* mainly covers some of the open land, with *Trifoliate*, *Cassytha*, *Louarea*, etc.

Principal ~~such~~ food plants are *Cocos*, *Artocarpus*, *Cyrtosperma*, with *Musa*, *Crataeva*, *Pandanus*, *Ipomoea batatas*.

Tobacco is sparingly cultivated. Ornamentals are *Crinum* (2 forms - white & red), *Hymenocallis*, *Polysema* sp., *Plumeria*, *Gomphrena globosa*, *Mirabilis*, etc.

Trees around the village are *Cordia subcordata*, *Theespesia*, *Hernandia*, *Terminalia* sp., *Pittosporum*, *Coco*, *Artocarpus*.

A slight development of mangrove formation is evidenced by a few *Rhizophora* and *Bruguiera* trees.

The relatively richer flora of P is than Normwin may well be a reflection of the nearness of high islands. *Acalypha*, *Pittosporum*, *Cordyline*, *Oplismenus*, *Phizophora*, *Bruguiera*, *Ptychosperma*, *Psilotum*, *Derris*, *Vigna*, *Manisuris*, etc. and many weeds may be evidence of this. Both natural means and frequency of human transportation are probably involved in this.

June 5 - flats near Baker Dock  
Moen I.

Broad flat of somewhat raised coral gravel. Openings weedy, with *Cleusine*, several *Euphorbias*, *Digitaria*, *Paspalum conjugatum*, *Ipomoea*, *Piper*, *Timbostylis*, *Pistia australis*, etc.

Mangrove swamp occupies a portion of this, mostly *Rhizophora* but considerable *Sonneratia*, some *Bruguiera*, *Eccocaria*, *Leavesia*, *Lumnitzera*, *Allophylus*, etc.

One part has large *Artocarpus*

24692 *Ipomoea* littoralis B.  
very common on sandy flats  
and at edge of mangrove swamp

93 *Timbostylis*  
roadway of coral across  
mangrove swamp

94 *Glochidion*  
occasional on coral flat

95 *Carica papaya*  
common coral flat

with vines - *Piper*, *Ipomoea*, *Wedelia* (?) climbing up trunks, some *Pandanus*, 2 sp. *Glochidion*, etc.

*Tacca* is occasional.  
*Cyperus* sp., large grass,  
sterile *Miscanthus japonicus*.

herbaceous vine, on ground and climbing over bushes, flowers still open at 10 a.m. bright rose-purple, deeper in center.

caespitos. leaves only somewhat stiff.

small tree, fruit with base of style enlarged, dark green; fls. yellow. erect dioecious plant, single stem with crown of large leaves, flowers white, this tree male. Fruits seen on others all very small, 5 cm. diam. spherical?

24696 *Glochidion*  
occasional on coral flat

97 *Piper*  
common climbing on tree  
trunks on coral flats

98 *Wedelia bifurca*  
common climbing on tree  
trunks on coral flats

99 *Phragmites australis*  
very abundant in open  
coral flats in wet places

24700 *Lida acuta*  
common weed on coral flat

01 *Cyperus*  
coral road in mangrove swamp

02 *Thunbergia involucrata*  
common on open coral flat

03 *Tarco leontopodioides* L.  
common climbing on old  
coconut stumps on open coral  
flat. scattered on coral  
flat.

04 *Piper*  
common climbing on old  
coconut stumps on open  
coral flat.

05 *Digitaria pumila* var. *minima*  
occasional on open coral flat

06 mangrove swamp on coral mud  
mangrove swamp, edge

small tree, fruit  
pale green without  
enlarged dark green style  
base.

leaves dark green, ripe  
spike crimson. Plant  
with slightly peppery odor.  
vine-like, elongate,  
flowers yellow.

great masses 2 m. or more  
deep.

fls. orange yellow,  
- plant up to 0.8 m. tall.  
small tuft.

vine, leaves ~~chlorotic~~.  
a caulescent, scape  
up to 1 m. tall. leaves  
2/3 as tall, linear, bracts  
purple, fls. green.  
vine, leaves somewhat  
chlorotic.

approaching sea grass

small tree, fls. white.

vine climbing in bushes  
and trees.

140 1946 Truk Is. (Carolines)

44703 *Barringtonia asiatica* L.  
mangrove swamp on coral sand  
or *Allophylus*  
edges of mangrove swamp

10 *Ficus tinctoria* Forst  
edges of mangrove swamp

Moen)

141

tree 6 m. tall.

shrub 2-3 m. tall,  
fls. white; fruit scarlet  
double.

small tree, ripe fruit  
bright orange

June 8, 1946 - Mt. Lasso, n. central  
Timian I. 500 ft.  
remnants of old forest  
persisting on dissected coral  
limestone around house

✓ 24711 *Taeniophyllum mariannense*  
epiphytic on *Cynometra* trees.

✓ 12 *Cynometra ramiflora*  
commonest tree

✓ 13 *Pipturus argenteus*

June 9, 1946 - "Palm Beach", west  
central coast of Timian I.  
near top of limestone sea cliff

✓ 14 *Hedysotis foetida* var. *mariannensis*  
rock ledges

✓ 15 *Phyllanthus mariannus*

June 9, - Laire Hagaoya,  
northern end of Timian I.,  
abandoned cultivated ~~atoll~~  
ground

✓ 16 *Amaranthus viridis*  
hard trampled ground

✓ 17 *Lesbania canariensis*

✓ stuck flat to bark, fruit  
green, peduncle thick.  
tree 3 m. tall with  
buttressed trunks 3 dm.  
thick, leaves glossy  
- dark green.  
small tree 3 m. tall,  
ripe fruit white, fleshy.  
leaves relatively smooth  
above.

✓ sub-shrub up to 1 m. tall,  
with foetid odor when broken,  
flowers white, corolla  
funnel-form, lobes erect.  
shrub up to 0.7 dm. tall,  
leaves sensitive, while  
branchlets of them closing  
up when put in press.

*prostrate*

✓ erect slender, height 2 m. tall, leaves  
somewhat sensitive, flower yellow.

~~Spec~~ June 3 - south end of  
Timian I.,  
limestone terrace  
250 ft.

24713 ~~in thin~~  
thickets

✓ 19 ~~in~~ *Blepharis mariannensis* (DC.) Ridsy.  
thickets

✓ 20 *Jasminum mariannum* DC.  
thickets

✓ 21 *Psychotria mariana*  
thickets

✓ 22 *Eugenia palumbis* Merr.  
thickets

June 8 - plateau 1 mi. n. of  
Timian, Timian I. 250 ft.  
cultivated in garden

✓ 23 *Graptophyllum pictum*

✓ 24 *Pseuderanthemum atropurpureum*

shrub 1-2 m. tall, scrambling,  
immature fruit dull  
pinkish.

shrub 2 m. tall,  
somewhat latexiferous,  
buds green.

scrambling shrub.

shrub 1 m. tall, flowers  
white, fruit red.

stipules crata, not  
calyculate.

low shrub 0.5 m. tall,  
fruit red when ripe.

bush 1 m. tall, leaves  
with irregular white  
centers, some twigs  
with leaves green; flowers  
purple.

shrub 1.5 m. tall, leaves  
deep irregular bronze-  
purple; corollas with  
one erect, 2 horizontal and  
one downward-pointing lobe,  
pink, closely speckled  
with deep pink.

June 3. - Camp Chard, near center of Tinian I. <sup>100 m.</sup>  
roadsides and cultivated ground.

✓ 24 725 rust on *Euphorbia prostrata*

✓ 26 *Bauhinia monandra*  
cultivated ornamental

✓ 27 *Cassia glauca*  
cultivated ornamental

✓ 28 *Zoysia matrella* *timifolia* T. & G.  
cultivated as lawn

June 9 same

✓ 29 *Amaranthus viridis*  
near buildings, occasional

✓ 30 *Amaranthus spinosus*  
near buildings, common

June 9 near Marpo Wells,  
Tinian I.

abandoned cultivated land,  
in and around large sink-hole.

✓ 31 *Ficus microcarpa*  
roadsides

✓ 32 *Magnolia indica*  
deep ~~gated~~ hole in bottom  
of sink-hole

✓ 33 *Pennisetum ellipticum*  
around bases of trees in  
sink hole.

causing the normally  
prostrate host to grow  
erect.

shrub 2 m. tall; flowers  
pink, lower petal  
conspicuously spotted  
with red.

small tree 3 m. tall,  
leaves slightly glaucous,  
flowers yellow.  
forming a dense soft  
carpet, not pungent.

erect herb, branching  
erect herb 1 m. tall, stem  
fleshy, branching.

banyan-type of *Ficus*, dense  
rounded top. pigs green.  
canes 2-3 m. tall.

sterile woody vine,  
leaves glaucous beneath.

June 8-13. Tinian Island is composed of a series of elevated terraces of reef limestone, representing at least 4 levels of elevation, separated by lines of cliffs. The surfaces of these terraces or benches are covered by soils varying in color and thickness from level to level. Some faulting has obviously taken place, resulting in slightly tilted terraces and several apparent levels that probably do not repeat still-stands in the history of the elevation of the island. There are several large limestone sinks, so old as to be now merely small valleys with no outside drainage. One has a small lake. There is at least one small basalt outcrop, overlain by limestone, at Marps or Carolina ridge. This is so small that it probably has no influence on the vegetation.

The edges of the terraces above the sea cliffs and bluffs in many places have lost their soil, or

never had any, and are bare, rough, usually more or less dissected coral limestone. There are few beaches of any size on the island.

No trace of the vegetation on the terraces, except where there are outcroppings of dissected limestone. The Japanese placed every square meter of land with enough soil into sugar cane, napier grass and sweet potatoes. Later the U.S. agency farmed some of this land quite intensively. Now it has been abandoned for periods of upward of 7½ months. A vigorous weed vegetation has developed, so much so that it is hard to believe that such a short period has elapsed since the land was intensively cultivated. The most obvious and generally distributed plants are *Parpallum conjugatum*, two sp. of *Lida*, *Melodstium* ~~sp.~~ *coronandelianum*, *Crotalaria salticana*, *Euphorbia hirta* (a very coarse and luxuriant form), *C. thymifolia* and another prostrate sp. (ctd. N. 192)

24734 *Passiflora quadrangularis*  
bottom of sink-hole

✓ 35 *Blaberia marianensis* (A. Br.) K. & S.  
coral limestone

36 coral limestone

✓ 37 *Pisonia grandis* R. Br.  
coral limestone

✓ 38 *Mucuna gigantea*  
coral limestone

send of  
June 9 - Masalog Ridge.

Tinian Is.

brink of eroded limestone cliff  
brushy vegetation

✓ 39 *Jasminum marianum* K.  
very common in brush (and  
in all parts of island)

40 *Cassia*  
common

✓ 41 *Cardiospermum halicacabum*  
common

✓ 42 *Colubrina asiatica*  
common

✓ 43 *Blaberia marianensis* (A. Br.) K. & S.  
common

✓ 44 *Pseuderanthemum* K. & S. (written this)  
common

herb 1 m. tall,  
flowers yellow, 2-2.5  
cm. across, petals yellow,  
~~the stamens~~  
obcordate, dropping very  
easily.

- small tree or shrub,  
2 m. tall, flowers white.  
slender small tree 5 m.  
tall.

- tree 10 m. tall, fls.

- green, fragrant.  
vine climbing over trees,  
flowers and fruits pendent.

ascendent shrub,  
flowers white, fruit  
green.

~~small~~ suffrutescent herb  
up to 1 m. tall, fls. yellow,  
leaves dull green.

vine, on ground and  
climbing on shrubs, flowers  
white.

subascendent shrub,  
leaves glossy, fls. yellow.

erect shrub 3 m. tall,  
fruit strongly divergent.

low shrub 1 m. tall fls.  
greenish white, aromatic.  
(fruit from different bush) diff.  
about.

24745 *Phyllanthus mariannus*  
common in openings

✓ 46 *Capparis coriata* (L.) Linn.  
rare on edge of cliff

✓ 47 *Psychotria mariannensis*  
common

✓ 48 *Canthium odoratum* Linn.  
common

✓ 49 *Fimbristylis cymosa* var.

✓ 50 *Bikkia*  
common on brink of cliff

✓ 51 *Bikkia*  
same

✓ 52 *Bikkia*  
same

✓ 53 *Gossypium hirsutum* L.  
common

✓ 54 *Canthium odoratum* var. *tinianum*  
common

✓ 55 *Annona squamosa*  
common

✓ 56 *Canthium odoratum* var. *tinianum*  
common

shrub up to 0.6 m. tall.  
leaves blue green, fleshy, low branched  
sub-shrub, one withered  
flower, buds with one  
side gibbous.

shrub 1.5 m. tall, leaves  
stiff, stipules not calyptate,  
flowers white, fruit red  
when ripe.

shrub 1 m. tall, fls. white,  
fruit becoming black  
when ripe.

caespitose on ledges at  
brink of cliff.

small shrub 0.6 m. tall,  
fls. white. leaves fleshy  
same

same

shrub 1-1.5 m. tall, fls.  
cream, turning rose; fruit  
from different plant.

shrub 1 m. tall  
fruit immature

shrub 1 m. tall

shrub 1 m. tall, fruit  
immature

June 9 Tinian City, Tinian,  
small patch of woods  
on dissected coral on terrace

24757 *Psychotria mariniana*

✓ 58 *Ficus prolixa*

✓ 59 *Ficus tintorius*

✓ 60 *Canthium*

61 *Callicarpa*

62

✓ 63 *Dearonia amaranthoides*  
rare

✓ 64 *Cassytha filiformis* L.  
common, parasitic  
on various plants

✓ 65 *Passiflora foetida* var. *hispida* (L.) Millig  
common everywhere

✓ 66 *Polyalthia* sp. var. *varia*  
occasional

✓ 67 *Albizia lebbeck*  
common

shrub 2 m. tall, fls.  
- white, ripe fruit red.  
open tree 2 m. tall fruit  
immature, largest ones  
pinkish with red dots.  
- with aerial roots,  
shrub 2 m. tall (often  
as large as tree), fruit  
- yellow to orange.  
erect shrub 2 m. tall,  
fruit green.  
low shrubs, 1 m. long,  
buds purple, ripe fruit  
turning purple.  
small tree, stigmas  
deep purple.  
vine, spikes pendent

leafless, stems green,  
flowers white; ripe  
fruit white, fleshy.  
vine, climbing over  
shrubs; fruit orange.  
buds deciduous when  
fruit is ripe.  
tree 2 m. tall; leaves thin;  
- fruit green.  
tree 2 m. tall.

June 9 same  
terrace just above ~~sea~~  
coral limestone about 5 m.  
24768 *Jatropha gossypifolia*  
abundant over much  
of island.

- ✓ 69 *Cyperus*  
common
- ✓ 70 *Pemphis acidula*  
common very locally on  
dissected limestone
- ✓ 71 *Hedysotis albipunctata* (Merr.) Robt.  
dissected coral limestone
- ✓ 72 *Timbostylis cymosa* R. Br.  
coral limestone
- ✓ 73 *Hedysotis foetidissima* var. *mariannensis*  
coral limestone, common
- ✓ 74 *Scavoia frutescens* (Mill.) Kn.  
common

June 9 Near Marsh Wells, Tinian.  
around buildings in abandoned  
cultivated ground.

- ✓ 75 *Boerhaavia diffusa*  
occasional
- ✓ 76 *Desmodium triflorum*  
carpeting ground, widespread  
on island.

shrub 1-1.5 m. tall,  
lower leaves green, upper  
deep purple, glandular  
hairs purple, green tipped;  
flowers brick red; fruit  
green.  
- tuft, spikes brown  
low bushes up to 1 m. tall,  
leaves astringent when  
chewed, flowers white.  
- leaves fleshy, paler  
- beneath; fls. white,  
caespitose, leaves stiff.  
- plants ascending, up  
to 5 dm., leaves fleshy,  
buds white, few.  
shrub 1-2 m. tall,  
flowers white, fruit  
white, fleshy when ripe.

prostrate from a heavy  
root crown, stems up to 1 m.,  
long, branched; leaves white  
beneath, not fleshy.  
prostrate; fls. purple.

June 9 - Mt. Lasso, Tinian I.  
dissected limestone outcrop,  
brushy tangled forest.

24777 *Morinda citrifolia* L.  
common, widespread on island

✓ 78 *Melanolepis multiglandulosa*  
June 10 common, widespread on island

79 *Lida*  
common all over island  
this plant sheltered.

80 *Lida*  
common in abandoned fields  
all over island (same as 24779)

81 *Lida* auct.  
common in abandoned fields  
all over island.

June 10 <sup>near</sup> - Lake Hagoya, north  
end of Tinian I.

strand vegetation on dissected  
coral, mainly *Thespesia*, *Excoecaria*,  
*Pemphis*, *Messerschmidia*, etc.  
with *Ipomoea pes-caprae* on  
sand and *Hedysarum* in rock  
crevices and cavities

✓ 82 *Messerschmidia argentea* (L.) Johnst  
common

83 <sup>83</sup> *Excoecaria agallocha*  
<sub>84</sub> commonest tree on dissected  
coral

shrub 2 m. tall, leaves  
glossy, fls white.

- small tree 3 m. tall,  
fruiting spikes pendent.

- brush 1 m. tall, leaves  
dark green above, gray beneath.

rounded gray brush 1 m.  
tall.

stems ascending,  
branching and leaf arrange-  
ment distichous, color  
light green.

small tree 4 m. tall,  
leaves fleshy, silvery green,  
flowers white, fruit pale  
green, fleshy

- small lactiferous tree  
4 m. tall.

✓ 24785 *Fimbristylis cymosa* R.Br.  
- dissected coral

✓ 86 *Therpesia populnea*  
common

✓ 87 *Digitaria mariannensis*  
occasional in sandy pockets

✓ 88 *Hedystis albido-punctata* (Men.) Forsb.  
rock ~~crevices~~ crevices and pockets

✓ 89 *Ipomoea per-capitae* (L.)  
sandy places, common

90 *Vitis*  
common, back from shore

✓ 71 *Ipomoea quamoclit* L.  
cultivated, <sup>climbing</sup> on wall around  
cemetery

92 *Eragrostis*  
~~various~~ weed in cultivated ground

✓ 93 *Delonix regia*  
planted around settlements  
and along roads

✓ 94 *Antigonon leptopus*  
planted around buildings

95 weed around buildings

✓ 96 *Eragrostis amabilis* L.  
weed everywhere

97 *Ipomoea*  
weed around buildings

caespitose, leaves not  
- stiff.

small tree, flowers  
pale yellow

rather stiff tufts.

- spikes appressed.

recumbent to ascending,  
leaves fleshy, pale beneath,  
flowers white, tube ~~slightly~~ enlarged,  
throat constricted, lobes  
divergent.

extensive vine, prostrate  
on ground.

shrub 2-3 m. tall,  
fls. purplish.

slender vine, flowers  
scarlet.

spreading, clump

flat-topped tree 6 m. tall,  
fls. scarlet, lower petal  
at first pink with red  
spots, turning reddish.  
vine, flowers bright  
rose pink.

low, spreading

prostrate, creeping on  
ground, fls. purple, closing  
at about 10:30 a.m.

24793 *Chloris inflata*  
common along roadsides

✓ 99 *Dactyloctenium aegyptium* (L.) Beauvois  
common everywhere

24700 *Euphorbia*  
common everywhere

✓ 01 *Euphorbia hirta*  
abundant everywhere

✓ 02 *Cuphea prostrata*  
abundant everywhere

✓ 03 *Phyllanthus Kirnius* <sup>ananas schr. - th.</sup> <sub>det. B. L. Wilson 1955</sub>  
abundant everywhere

✓ 04 *Boerhaavia diffusa* repens  
common

✓ 05 *Bambusa blumeana* Schult. f. det. F. A. Mulline  
planted

✓ 06 *Bambusa vulgaris* Schult. f. det. F. A. Mulline  
planted

✓ 07 *alpinia speciosa*  
planted

✓ 08 *Carica papaya*  
common everywhere

Tufts

spreading, rooting  
at nodes.

prostrate, plant green.  
decumbent base, tips  
ascending and arching,  
unusually luxuriant.

prostrate, plant purple.  
erect

prostrate, stems elongate,  
fls. pink

clumps with culms crowded  
rather closely, dark  
green, up to 6 m. tall,  
lower branches very  
spiny, forming a tangle

sheaths from 4 th + 5 th nodes

clumps with culms  
from 5 to 15 cm. apart,  
up to 6 m. tall, dark green,  
sheaths from 5 th node,  
culm sample 4 th + 5 th nodes  
(young + old culms)

large clump 7 m. tall  
fls. ~~sheath~~ white with  
red tips, lip yellow

marked with red.  
columnar soft stem  
with crown of large  
leaves, fls. white ♂.

228 June 10 Marpo Valley, near Marpo Wells, Tinian Island limestone slope, abandoned orchard

✓ 94809 *Terminalia catappa* L. near house

✓ 10 *Polyscathia granitis* common second growth tree

✓ 11 *Canthium* second growth in orchard

✓ 12 *Hassinea operculina ventricosa* common climbing over trees

July 10 of Mt. Saipan, Tinian.  
Limestone slope, abandoned  
June 10 camp Churns,  
(Tinian).

✓ 13 *Abandon camp site.*

✓ 13 *Digitaria ciliaris* open ground

✓ 14 *Cosmos sulphureus* sulphureus open ground

✓ 15 *Argemone mexicana* open ground, large colony

spreading tree 8 m. tall,  
flowering white, fruit  
thick, bicarinate.

- small tree 4 m. tall,  
leaves thin, dark green,  
fruits green

- shrub 2 m. tall, fruits  
dark green to black.

- great herbaceous vine  
many meters long,  
almost completely  
covering trees.

of decumbent with  
ascending ~~scapes~~  
scapes. Plant very  
blue-glaucous, hairs  
glistening  
red flowers intense orange  
glaucous herb, flowers  
bright yellow.  
leaves white along vein

June 11 - Marpo Valley, Tinian I.

abandoned cultivated land

✓ 24816 *Ipomoea* ~~sticta~~ <sup>lanceolata</sup> (Lam.) R. Br.  
planted about old house site

17

solid stand on terrace of  
deep black soil✓ 18 *Capparis cordata* (Lam.) Benth.  
common on small  
makaitea outcropsJune 11 - terrace above ocean  
on s.e. side of ~~island~~ Tinian  
Island grass-covered  
terrace of deep black soil  
with outcrops of dissected  
coral or makaitea. Erosion foot  
weathers talus slopes at foot  
of slopes with low brush✓ 19 *Portulaca oleracea*  
~~abundant~~ in disturbed places  
and along road on terrace✓ 20 *Vernonia cinerea*  
common on terrace in  
disturbed placesshrub 2 m. tall, stems  
branched principally  
at base, not inflated,  
flowers lavender,  
sterile, slightly  
gray-green.low suffrutescent  
herb, somewhat  
scandent, leaves  
glaucous; flowers  
wilted at 11 a.m. (said  
to have been at 7:00 a.m.),  
fleshy, white; buds with  
strongly gibbose, <sup>inflated</sup>  
lower sepal; immature  
fruit with 5 strong ribs,  
stipe recurved.of ~~abundant~~ *Thespesia*, *Myoporum*,  
*Chloris* and several  
other shrubs, with  
*Cassytha*; *Bikkia* around  
cliffs, and limestone outcropsfleshy, fls. yellow, about  
1 cm. or less across.  
erect, fls. purplish.

24821 *Miscanthus floridulus*.  
dense small patch ~~2 m. tall~~  
on terrace.

✓ 22 *Rhynchosia calosperma* Wab.  
occasional in grass on terrace

✓ 23 *Heteropogon contortus*  
common locally on terrace

✓ 24 *Chrysopogon aciculatus*  
occasional on terrace

25 *Cyperus*  
occasional on terrace

26 *Cassia*.  
occasional on terrace

27 *Abutilon*  
rare on lower slopes

28 *Allophylus*  
rare on lower slopes

29

✓ 30 *Polyodium scolopendrium*  
very common on slope and  
coral outcrops

31 rare, tufts in crevices on face  
of ~~the~~ limestone cliff

✓ 32 *Bletilla formosana* J. Graham  
common in small openings  
on slope

✓ 33 *Achyranthes aspera*  
occasional small patches

✓ 34 *Wedelia biflora* var. *coerulea*  
common around slopes and at  
foot of cliffs

canes 2 m. tall, forming  
dense brake.

prostrate vine,  
mostly sterile.

stems weak, reclining  
small tufts,

~~fls.~~ low bush, 0.8 m.  
- tall, fls. yellow.

suffrutescent herbs  
scandent shrub,  
fl. white

low bush 1 m. tall.

stiff, only seen in bud.  
branches erect, ~~leafy~~

small tufts

prostrate herb with erect  
branches, corolla pale purple,  
drooping very easily.

stems spreading, elongate,  
ascending at tips, staminal  
tube deep crimson.

prostrate, tangled elongate  
stems, fls. yellow.  
leaves with slight frosty appearance.

24835 *Bikkia*common on and about foot of  
limestone cliffs✓ 36 *Heliotropium anomalum* H. & A.  
rare on ledges of limestone- 37 *Emilia sonchifolia*  
common generally- 38 *Bikkia*  
common on and about foot of  
limestone cliffs.

39 common on slopes

✓ 40 *Portulaca ~~genteelis~~ australis*  
rare on slopes✓ 41 *Myoporum boninense* Koidz.  
very common on slopes- 42 *Zornia matrella*  
terrisolia T. in  
common on slopes, in places  
forming a carpet.- 43 *Lepturus repens*  
common on slopesshrub 1-2 m. tall, leaves  
thick, leathery, glossy,  
flowers white, almost  
odorless, margin of  
corolla revolute in age.  
leaves fleshy, flowers  
white with yellow tubs,  
honey-like odor.  
flowers purple.shrub 1-2 m. tall, leaves  
thick, leathery, glossy;  
flowers white, almost  
odorless, margin of  
corolla revolute in age  
prostrate in exposed  
places, a low shrub  
in sheltered places. flowers  
yellow. prostrate,  
plant fleshy, leaves  
somewhat compressed.  
prostrate in exposed places,  
low shrub when sheltered,  
flower white with honey-  
like odor, fruit deep  
magenta-purple when  
ripe, not angled.  
not pungent.small ~~opp.~~ tufts.

24341 *Hedysotis albidopunctata* (Merr.) Fosb.  
common on slopes

✓ 45 *Oxalis corniculata* var. *repens*  
common on open slopes

June 11 Manjo Valley, Tinian I.  
abandoned cultivated land.

✓ 46 *Cassia occidentalis*  
one of commonest plants

leaves more

✓ 47 *Potentilla iconandra*  
very abundant

48 *Cyanotis*  
common

✓ 49 *Physalis longifolia* Nees  
common

June 11 west side of Island  
"Palm Beach" Tinian I.

cliffs of limestone, covered with  
small trees, at bottom talus  
covered by *Barringtonia asiatica*,  
moist.

✓ 50 *Tacca leontopodioides* L.  
small colony in shade on talus

✓ 51 *Dioscorea trifida* L.  
rare on talus in shade

Tinian

prostrate, stems red.  
leaves fleshy, flowers  
white, <sup>lobes</sup> strongly divergent,  
narrowly oblong, throat  
closed with hair, immature  
fruit fleshy. corolla tube  
~~obconic~~ dilated at middle.

prostrate, flowers yellow.

herb 1.5 m. tall, flowers  
yellow. Japanese were  
said to have used seeds  
as a coffee substitute.

herb with rank odor,

yellow flowers.

flowers lavender,  
perianth tube long, petals  
unequal, deliquescent.

herb, much branched, 0.7 m.  
tall, flowers pale yellow

top covered by tall brush,  
grading to *Scorodonia* out on  
point, then to open *Zizania*  
flat, then to bare dissected  
limestone.

sterile

sterile

✓ 52 *Barringtonia asiatica*  
talus at base of cliffs, dominant

53 shade on talus at foot of cliffs

54 *Asplenium*  
on cliffs

✓ 55 *Cordia subcordata*  
common on cliffs

✓ 56 *Digitaria quadrangularis*  
rare on cliffs

✓ 57 *Premna obtusifolia* A. Br. (various lvs.)  
common in brush at top of cliff

✓ 58 *Tarenna sandwicensis*  
common in brush at top of cliff

name open coral flat at top of cliff on point.

✓ 59 *Scaevola frutescens* (Mill.) Krs.  
common, especially away from point

60 *Callicarpa*  
common in edge of brush

✓ 61 *Boerhaavia diffusa* (L.) R. Br.  
at occasional on grassy flat

✓ 62 *Heliotropium angustissimum* A. Nels.  
common on bare dissected coral

large tree 12 m. tall.  
flowers white, stamens  
pink distally.  
fronds erect.

trees 5 m. tall, (flowers in  
young sprout), flowers  
brilliant deep orange.  
fruit green.

~~large~~ tufts

✓ bush 2 m. tall, fls.  
pale green, aromatic.  
leaves only slightly glossy.  
shrub 3 m. tall, fls.  
white, fading yellowish.  
fruit immature.

low rounded bush 1 m. tall  
(getting lower toward point)  
fls. white, fruit white, fleshy.  
low shrub 1 m. tall,  
flowers purple, ripe  
fruit deep purple.

prostrate, reddish.  
fls. pink, leaves thin.

prostrate, leaves fleshy,  
fls. white with yellow center,  
honey odor, (only one bird - deeply lobed  
noted)

✓ 4363 *Hedysotis albido-punctata*  
open dissected coral  
64 *Sida*  
open dissected coral  
✓ 65 *Evolvulus*  
open dissected coral  
✓ 66 *Zornia matrella* (Lam.) T. & G.  
dominant on open coral flat  
✓ 67 *Jasminum marianum* DC.  
in brush at top of cliff  
✓ 68 *Urticularia carassavica*  
abandoned cultivated land  
✓ 69 *Pachyphyllum erosum*  
in brush at top of cliff,<sup>low</sup>  
✓ 70 *Psidium guajava*  
in brush at top of cliff,  
only occasional on island  
✓ 71 *Psychotria mananensis*  
occasional in brush at top  
of cliff

June 11 Mt. Lasso, Tinian I.  
forest on limestone bluffs,  
surrounded by abandoned  
cultivated land.

✓ 72 *Carica papaya* L. *oppositifolia*  
in pasture, almost  
strangled by *Ficus*

June 12 same

73 *Ficus*  
edge of cultivated ground

prostrate, fls. white,  
lobes narrow.  
- prostrate  
prostrate, fls. blue  
forming a dense carpet.  
scandent shrub,  
- fruit shining, black.  
erect herb, corolla red,  
- crown orange  
vine climbing through  
brush, several m. long.  
shrub 1.5 m. tall,  
fruit immature.  
shrub 2 m. tall, leaves  
glossy, esp. on young  
growth, flowers white,  
ripe fruit red.

tree 5 m. tall, flowers  
white, fruit green,  
terete.

large tree, fruit green  
when ripe

178 1946 Marianas I.

- ✓ 24874 *Heliotropium indicum* L.  
weed around house
- ✓ 75 *Cyperus rotundus*  
weed around house
- ✓ 76 *Ricinus communis*  
cult. as ornamental
- ✓ 77 *Cynodon dactylon* (L.)  
around house, well  
scattered over island
- ✓ 78 *Catharanthus roseus* (L.) G. Don  
in garden, but escaped  
and well distributed  
over island.
- ✓ 79 *Echinochloa colonum*  
weed near house
- ✓ 80 *Paspalum conjugatum*  
~~grass~~ old cultivated  
ground, most abundant  
plant on island.
- ✓ 81 *Leucaena glauca* (Lam.) Benth.  
very common in abandoned  
land.
- ✓ 82 *Urena lobata* L.  
occasional in abandoned land
- 83 *Lida cordifolia*?  
rare, in eroded place
- ✓ 84 *Vigna marina*  
eroded land, widespread on island
- ✓ 85 *Crotalaria saltiana* <sup>Wight & Arn.</sup>  
very common in abandoned land
- 86 *Strongylodon*  
edge of cliff

179

Trinidad

- flowers white with  
yellow center.  
heads white.  
shrub 2-3 m. tall.  
forming dense turf.
- erect suppedeeent  
herb 0.5 m. tall.  
flowers magenta  
(other plants white)  
spreading from road  
crown.  
rooting at nodes,  
runnig, culms  
erect.
- shrub, 1-2 m. tall,  
fls. whitish, anthers  
salmon-buff.
- erect, plant reddish green.  
prostrate sub-shrub.  
extensive.
- prostrate, peduncles erect.  
flowers yellow, keel straight.
- herb 2 m. tall, flowers  
yellow with brown  
markings on standard.  
extensive vines, racemes  
pendent, standard  
deep maroon, wings & keel  
lighter, almost crimson.

✓ 87 *Polyscias* sp. n. sp. folia  
limestone on top of cliff,  
shaded.

88 *Polyscias*  
planted as ornamental

✓ 89 *Casuarina equisetifolia*  
planted extensively for windbreaks

90 *Polyscias*  
planted as ornamental

✓ 91 *Codiaeum variegatum*  
planted as ornamental

✓ 92 *Acacia confusa*  
extensively planted for windbreaks

✓ 93 *Calophyllum* ~~infr~~ *infr* *infr* *infr*  
planted as ornamental

✓ 94 *Nicotiana tabacum*  
persisting from cultivation

✓ 95 *Zephyranthes rosea*  
persisting from cultivation

✓ 96 *Cerbera dilatata*  
top of cliff

✓ 97 *Abrus precatorius*  
tangled in the vegetation  
at top of cliff.

✓ 98 *Pithecellobium dulce*  
common everywhere

June 12 Camp Chuno, near  
center of Tinian I.

99 *Ficus*  
around buildings

shrub 2 m. tall,  
leaves glossy, plant  
with slight celery odor.

erect shrub 2 m. tall, fruit  
blue-gray, rubbing to  
black.

tree 8 m. tall

erect shrub, leaves  
stiff, crinkled.

erect shrub, leaves  
spotted with white.

small rounded tree

tree 8 m. tall, flowers  
white, fragrant.

herb 1 m. tall, flowers  
pink, herbage sticky.

dense cushions, flowers  
bright rose pink.

tree 5 m. tall, flowers  
white, pinkish in tub.

vine climbing in trees,  
seeds red and black.

tree, branches ascending,  
sterile.

janjan type but trunk  
not very well developed.

tree 8 m. tall, ripe fruit  
purple.

June 12 - Officers Beach, c. side Trinian I.

sandy beach surrounded by coral limestone bluffs sand covered by *Sporocarpa*, *Tridiumpettii*, etc. bluffs with *Memphis* with a few other shrubs + *Hedyotis*

24900 *Malvastrum coronandelianum*, roadside, one of principal weeds in abandoned fields.

- ✓ 01 *Amaranthus viridis* roadside weed, common
- ✓ 02 *Cleusia indica* one of commonest weeds on island, roadside
- ✓ 03 *Hibiscus tiliaceus* L. in forest back of cliff, common
- ✓ 04 *Cenchrus echinatus* common roadside weed, found everywhere
- 05 *Sporocarpa alba* L. very abundant in forest behind bluffs
- ✓ 06 *Thunbergia annulata* on sand back of beach
- ✓ 07 *Terminalia mollis* on limestone bluffs, exposed
- ✓ 08 *Hedyotis albido-punctata* (Merr.) T. & G. limestone bluffs

scrappy woods ~~at base~~  
bluffs covered by great growth of *Sporocarpa alba* and *Passiflora foetida*

flowers yellow  
prostrate  
spreading tufts.

small tree 4 m. tall,  
leaves very dark above,  
white beneath.  
spreading tufts.

great vine almost smothering trees.

prostrate, forming a low mat.  
shrub 1.5 m. tall.  
just very young  
prostrate, stems red.  
flowers white. leaves  
fleshy

✓ 9 Ipomoea pes-caprae  
sandy beach

✓ 10 Trinmpetta procumbens  
sandy beach

✓ 11 Wedelia biflora var. <sup>canescens</sup>  
common on sandy beach

✓ 12 Ficus  
lower face of bluff

✓ 13 Heliotropium anomalum H. & A.  
sand at foot of bluffs  
not common. (with #23914)

✓ 14 Heliotropium anomalum H. & A.  
sand at foot of bluffs,  
not common (with #23913)

15 common along trail in brush

✓ 16 Scaevola fuliginea (Mill.) Kr. var.  
common on bluffs

June 13 North Air Field,  
Tinian I.  
coral flat becoming  
very rough toward the sea  
covered by large patches  
of Verbesina, Pemphis,  
Heliotropium anomalum,

extensive prostrate vine,  
rooting in sand, flowers  
bright purple.

extensive creeping  
prostrate branched vine.  
prostrate, extensive,  
flowers on ascending  
branches, yellow.  
- leaves fleshy.  
- shrub 1.5 m. tall.  
- fruit immature.

prostrate to ascending,  
br. fleshy; flowers yellow  
with white lobes,  
- slight honey odor.

prostrate to ascending,  
leaves fleshy; flowers  
white with yellow center,  
strong honey odor.

stem prostrate, branches  
ascending, corollas  
lavender, falling very quickly,  
small shrub (others large)  
flowers with central  
third of lobe purple,  
fruit immature.

etc., with Hedyotis albulipundata  
between. Myoporum  
here and there

24917 *Heliotropium anomalum* H. & A.  
rough coral, forming almost  
pure stands of many  
square meters each.

✓ 18 *Capparis cordifolia*  
on raised blocks on rough  
coral flat

✓ 19 *Hedysotis albido-punctata*  
~~in~~ small cavities in  
rough coral

✓ 20 *Portulaca oleracea*  
common along disturbed  
roadside

✓ 21 *Pteris ovalis*  
top of coral bluff, back of  
flat south-east of air field

✓ 22 *Fimbristylis insularis* (L.)  
roadside west of air field

plant fleshy, prostrate  
to ascending. flowers  
white with strong yellow  
center, honey scented, scarcely  
- or not dimorphic.

subscandent shrub,  
leaves ~~are~~ fleshy, somewhat  
glaucous, minutely  
viscid glandular but  
not pubescent; at 8:30 a.m.  
some flowers wilted,  
those in shade still open,  
obviously a night-flowering  
species, flowers cream-  
white, fragrant.

prostrate to ascending,  
stems red to green,  
leaves fleshy; flowers  
white, lobes patent,  
elliptic-ovate.

plant fleshy; flowers  
yellow, 1 cm. across,  
stamens about 20,  
fls. closing at about 11 a.m.  
tree 8 in. tall, lactiferous;  
leaves thinly arachnoid  
sericeous beneath.

June 13 "Broadway", s.w. of  
Yellow Beach  
abandoned cultivated land

✓ 24 *Clitoria ternatea*  
covering solid patches  
in field near road.

✓ 25 *Annona muricata*  
roadside tree

✓ 26 *Artocarpus altilis*  
tree around old house-site

✓ 27 *Cucurbita*  
persisting after cultivation

✓ 28 *Morus*  
around old house site

✓ 29 *Suffa acutangula*  
persisting after cultivation

✓ 30 *Acalypha wilkesiana*  
roadside ornamental

✓ 31 *Cajanus cajan*  
persisting after cultivation  
~~at foot of base~~

✓ 32 *Pipturus argenteus*  
foot of limestone cliff  
common in forest

wine matting ground,  
flowers deep blue,  
white toward base  
of petals.

- tree 5 m. tall, fruit  
large, prickly.

- tree 3 m. tall, lactiferous.

prostrate vine, leaves  
flecked with gray,  
flowers orange.

- tree 5 m. tall

prostrate vine, infl-  
orescence exsert, flowers  
bright ~~pink~~ yellow.

- shrub 2 m. tall, leaves  
various shades of  
red and bronze-red;  
style, red.

brush 2 m. tall

June 13 "Broadway" n.e. of Yellow Beach,  
easternmost ~~hump~~ of 2nd line of cliffs  
soft stemmed, thick stemmed  
shrub 1-2 m. tall, leaves  
- young, buds green.

small tree 4 m. tall,  
at

June 13 - Mt. Lasso, Tinian I.  
around old shrine grounds,  
now abandoned

24933 *Canna*

planted ornamental

✓ 34 *Lansevieria bipunctata*

planted ornamental

✓ 35 *Cladodendron Thompsonae*  
planted ornamental

June 13 Camp Chao, Tinian I.  
old abandoned cultivated region

✓ 36 *Citrus pentandra*  
roadside tree

June 13 Camp Chao, Tinian I.

old abandoned cultivated region

✓ 37 *Coxi lacryma-jobi*  
roadside weed

✓ 38 *Bougainvillea spectabilis*  
<sup>glabra</sup>  
planted as ornamental

✓ 39 *Zorghum vulgare*  
<sup>bicolor</sup>  
persisting after cultivation

herb 1.5 m. tall, flowers  
brilliant scarlet, fruit  
marrow, tuberculate.  
leaves erect, gray and  
green mottled, the  
form with white  
edges growing nearby.  
berries orange red  
wing, calyx white,  
corolla deep blood red

fruit leaf black when  
young, then pearl gray.

tree 8 m. tall, ~~the~~  
branches perpendicular  
to tall straight trunk,  
widely spaced; fruit pendent.

fruit leaf black when  
young, then pearl gray.

scandent shrub, bracts  
magenta, flowers white,  
erect 1.5 - 2 m. tall.

*Euphorbia heterophylla* (not so common), *Asclepias curassavica* (not so common), *Cleusine indica*, *Portulaca oleracea*, *Cendrion echinata*, *Amaranthus spinosa*, *A. sp.* (less common), *Cyperus stuporus*, *Cassia occidentalis*, *Vernonia cinerea* (less common), *Phyllanthus niruri*, *Dactyloctenium sp.*, *Eragrostis amabilis* (less common). More local are *Sporomoea indica* (?), *Sporomoea sp.* (24797), *Cynodon dactylon*, *Clitoria ternatea*, *Tricachne insularis* (rare), *Cehinorhiza column*, *Catharanthus roseus*, *Cyperus bysslinga*, *Urena lobata*, *Trumpetia semitiloba* (Hosaka coll.) *Physalis sp.*, *Polaris isocauda* (abundant in Marsh area, important host for insect pests), *Oxalis*, *Chrysopogon aciculatus*, *Argemone mexicana*, *Chloris inflata*, *Eragrostis sp.* (rare), *Amaranthus* (24730) *Aeschynomene indica*.

Where the land has been abandoned longer bushy patches are appearing, with *Jatropha gossypifolia*, *Leucaena glauca*, *Psidium guajava*, *Indigofera suffruticosa*, *Passiflora foetida*, *Carica papaya*, *Lida sp.* (24779, 80) *Morinda citrifolia*, *Annona squamosa*. These places are usually smothered by *Passiflora foetida* and sometimes *Sporomoea* (24712).

Old house sites may be detected by small groups of *Artocarpus*, *Musa*, *Ficus*, *Terminalia catappa*, *Annona muricata*, *Morus* (rare), etc. *Nicotiana tabacum*.

*Vigna marina* and *Sporomoea per-caprae* form occasional patches inland especially where the top-soil has been removed by bulldozers or erosion. They are, of course, common on the coast.

The Japanese, after they had completely destroyed the natural forest vegetation, found the wind detrimental to their agricultural activities on the bare plateaus that remained. To correct this extensive wind-breaks of *Casuarina equisetifolia* and *Acacia confusa* were planted. These remain. In the broad strips of *Acacia* there is absolutely no undergrowth, not even ferns, grasses or mosses. I did not examine a similar planting of *Casuarina*. *Ceiba pentandra* was planted along some of the roads.

In the fields, persisting from cultivation are great quantities of *Saccharum* and *Pennisetum purpureum*. Little traces of *yea*, *Raphanus*, *Lactuca*, ~~Chenopodium~~ *Brassica* (Chinese cabbage), *Cucumis sativa*, *C. melo*, *Cajanus cajan*, *Sorghum vulgare* remain, other than a few scattered plants. *Cucurbita pepo*, *Lagenaria cicerina*, *Luffa aegyptiaca*, <sup>culmata</sup> *Trichosanthes*, *Cosmos sulphureus* (?). *Catharanthus roseus* ~~—~~ persist more abundantly. The U.S. Ch. papaya patch is still in good shape and produces quantities of fine "sols" fruit. Also papayas are spontaneous all over the island. A citrus grove of sour oranges and limes planted by the Japanese lies in the north side of Marpo Valley, but has now grown up somewhat to other trees.

Common plants cultivated around camps, etc. are *Pseuderanthemum eldorado*, *P. atropurpureum*, *Graptophyllum pictum*, *Catharanthus*

*roseus*, *Delonix regia*, *Cassia glauca*, *Cadaba monandra*, *Acalypha wilkesiana*, *Codiaeum vulgare*, *Polygonum fruticosum*, <sup>top of</sup> of several fancy forms, *P. quinquefolia*, *Canna hybrida*, *Annona muricata*, *Antidesma altilis*, *Terminalia catappa*, *Calophyllum inophyllum*, *Zephyranthes rosea*, *Clerodendron thompsonae*, *Hibiscus communis*, *Pomoea edulis*, *Alpinia speciosa* (rare), 2 sp. of Bamboo (rare), *Antigonon leptopus* (rare), *Ipomoea quamoclit*, *Annona muricata*, *Zygia matrella*, etc. Most of these were doubtless brought by the Japanese and some of the very specimens now cultivated were planted by them, as their size attests. Coconuts are rare.

The ~~top~~ different levels are separated by escarpments or rows of limestone bluffs which are covered by a thick forest excepting in some too abrupt places. Where there is no forest a <sup>large</sup> shrubby growth of *Bikkia*, ~~Dioscorea~~ *Psephelia mariana* etc. is found. This is usually

not far from the ocean. The forest is of *Ochroma* sp., *Cerbera* sp., *Psychotria* *mariannensis*, *Cynometra* *varia* sp., *Melanocephis multiglandulosa*, *Pisonia grandis*, *Pipturus argenteus*, *Guamia* *affinis*, *Erythrina* sp. about 2 or 3 sp. of *Ficus*, *Aglaia* (Horak coll.), *Mimosa* *citrifolia*, ~~Messers~~ <sup>and</sup> ~~with~~ *Psychotria* sp., *Premna*, *Colubrina asiatica*, a variable population of *Canthium*, *Polyscias* sp. (24837 var.), 2 rare undent. sp. (24921, 24931), tangled with ~~Colubrina~~ *Psychotria*. *Mormea* (24812), *Abrus precatorius*, *Mucuna gigantea*, *Strongylodon*, *Passiflora quadrangularis*, etc. There is little or no under growth in these forests except where disturbance has taken place.

A somewhat similar forest appears on outcroppings of <sup>devoid of</sup> *Camptos* dissected coral on the flat lands. *Ficus* seems to be more common here. *Albizia* sp. is common, possibly naturalized.

The original vegetation of the terraces may have been similar to this, but probably richer in species.

On the terrace toward the brows of these cliffs, and especially toward the sea cliffs the soil thins out to nothing. Before it becomes thinned to nothing a somewhat similar forest occurs, but with the addition of *Tarenna* sp., *Wikstroemia*, and with *Premna* more common. It is gradually reduced to brush where the soil becomes too thin. The brush has many of the same species as the forest *Premna*, *Ochroma*, *Eugenia*, *Canthium*, *Psychotria*, *Colubrina*, *Annona*, *Calliandra*, etc. Added are *Bilebia mariannensis*, *Phyllanthus* sp., *Capparis* *cordata*, *Cassia* sp., and, at low altitudes, *Scaevola* *frutescens* and *Pemphis* *acidula*, undent. bush (24829), *Myoporum*, etc. *Polypodium esculentum*.

On the high cliffs on the west side a better development of forest exists, especially on the talus at the base, where *Banningia asiatica* is dominant, with some *Pandanus*. Here the soil is moist and ferns, *Tacca*, *Pioscorea*, etc. grow in the shade.

On the cliffs, *Cordia subcordata* is very important. *Asplenium*, *Polyodium scoparium*, *Hedyotis boettgeri* var. *mariannensis*, and *Digitaria mariannensis*, are found ~~as~~ and *Ilyllanthus* sp. are found commonly.

On windswept headlands ~~at~~ an extreme strand vegetation ~~is~~ is found. This is on coral rock usually quite dissected and with little soil. Inward there is a belt of *Scaevola*, *Capparis callicarpa*, etc becoming lower and giving place to abundant *Myoporum*, *Heliotropium argenteum*, *Zygia matrella* (common, forming carpets), *Vicia*, *Hida* sp. (24364), *Hedyotis albido-punctata*, *Evolvulus* sp. The relative abundance and distribution of these varie from place to place.

~~On the sea~~ at low altitudes *Pemphis australis* enters the picture, often as a dominant over large plots, also *Terminalia catappa*, *Wedelia biflora*, *Excoecaria* (?), *Messerschmidia argentea*, *Therpesia populnea*, etc.

On a terrace ~~of~~ on the s. e. side there is deep black soil almost completely covered by dense

growth of a grass that may be *Sporobolus virginicus* (24317) with a dense patch of a reed (24321), patches of *Heteropogon contortus*, *Achyranthes*, occasional *Vernonia linearis*, *Portulaca* ~~tenuis~~ *oleracea*, *Chrysopogon*, *Cyperus* 2 sp., ~~etc~~ etc. Above on weathered talus slopes this gives way to the brush described on p. 197 with *Myoporum*, <sup>bituminous</sup> *Polyodium*, *Eugenia*, *Canthium* and 24327 important, and added 24339.

*Wedelia*, *Abutilon*, *Allophyllus*, *Achyranthes*, etc. toward the sea cliffs at the n. e. end, very prostrate *Myoporum* 24339, *Hed. albidof.* *Zygia*, *Lepturus repens* and *Oxalis corniculata* dominate the ~~sea~~ vegetation. Toward the rest of the cliffs elsewhere are occasional outcropping of dissected coral with *Capparis* principally. The deep soil of the terrace was cultivated in sweet potatoes by the Japanese.

On the few beaches *Ipomoea per-capitae*, *Wedelia biflora*, *Vigna marina*, *Trifolium* *scandens*, *Digitaria mariannensis*,

19 200

*Messerschmidia argentea*,  
*Scorodonia frutescens*, etc.  
are important.

The vegetation of the island may be briefly summarized as a strand vegetation, becoming more extreme in exposed places near the ocean and becoming more luxuriant and mesophytic inland and in sheltered places. It has been greatly altered by man, especially on flat, tillable ground.

June 9 - Mt. Lasso, Tinian I.  
around buildings

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on rotting wood

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on rotting wood



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